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Diseases

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Herpes Zoster Patients

Fibrous Tumor of Prostate

Highlights

Clinical Cardiovascular Events

Obstructive Pulmonary Disease

Discovering Thoughts, Inventing Future

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Identifying Risk Factors for Acute Exacerbations of Chronic Obstructive Pulmonary Disease

By Dr. Oza Harsh Nikhilkumar & Dr. Jyoti Vora
Gujarat University

Abstract- COPD (Chronic Obstructive Pulmonary Disease) is a chronic progressive disease with airflow obstruction. Exacerbations of COPD are a significant cause of hospital admission and readmission and an important determinant of health related quality of life. Identifying risk factors associated with exacerbations would help prevent deterioration in respiratory function. In our study, a total of 100 patients admitted with acute exacerbations of COPD in a tertiary care hospital were investigated using routine blood investigations and sputum study. Critically ill patients admitted in ICU, immunecompromised patients, those who were not compliant with prescribed home based bronchodilator treatment and in patients with sudden breathlessness due to cause other than AECOPD (Acute Exacerbations of COPD) were excluded from the study. Upon admission, a detailed history including history of previous exacerbations, smoking history, prior recent spirometry results were obtained. The data collected from each patient was analyzed using SPSS for windows, version 20.0. In our study, p value less than 0.05 was taken as significant. We found that 60 cases out of 100 had sputum sample positive for bacterial growth. Pseudomonas was the most common organism followed by H. influenza. We also found that not only respiratory infections are a major cause of exacerbations, but they also lead to higher hospital stay and mortality. Smokers had higher frequency of exacerbations.

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Identifying Risk Factors for Acute Exacerbations of Chronic Obstructive Pulmonary Disease

Dr. Oza Harsh Nikhilkumar [α] & Dr. Jyoti Vora [σ]

Abstract- COPD (Chronic Obstructive Pulmonary Disease) is a chronic progressive disease with airflow obstruction. Exacerbations of COPD are a significant cause of hospital admission and readmission and an important determinant of health related quality of life. Identifying risk factors associated with exacerbations would help prevent deterioration in respiratory function. In our study, a total of 100 patients admitted with acute exacerbations of COPD in a tertiary care hospital were investigated using routine blood investigations and sputum study. Critically ill patients admitted in ICU, immunecompromised patients, those who were not compliant with prescribed home based bronchodilator treatment and in patients with sudden breathlessness due to cause other than AECOPD (Acute Exacerbations of COPD) were excluded from the study. Upon admission, a detailed history including history of previous exacerbations, smoking history, prior recent spirometry results were obtained. The data collected from each patient was analyzed using SPSS for windows, version 20.0. In our study, p value less than 0.05 was taken as significant. We found that 60 cases out of 100 had sputum sample positive for bacterial growth. Pseudomonas was the most common organism followed by H. influenza. We also found that not only respiratory infections are a major cause of exacerbations, but they also lead to higher hospital stay and mortality. Smokers had higher frequency of exacerbations.

I. Introduction

COPD is projected to become third leading cause of death by 2020.[1] It is the only chronic disease with increasing mortality.[2] Exacerbations are important, not only because they impact an individual's life, but also because of their long term effects on health status, morbidity and mortality. Reducing the frequency of exacerbations would help an individual to live a stable healthy life without significant decline in respiratory capacity. This will also reduce health expenditure of frequent hospitalizations. Exacerbations are usually defined as increased sputum volume and/or purulence which necessitate a change or increased dose of routine medication. Anthonisen et al[3]. Divided exacerbations into three types. Type 1 was defined as increased breathlessness, sputum volume and sputum purulence. Type 2 was presence of 2 of the above three, type 3 by 1 of above in addition to upper respiratory infection in preceding 5 days, fever without other cause, increase heart rate or respiratory rate by 20%. In 1996 a study of survival following hospital admission for acute exacerbations reported in hospital mortality rate of 11% and 1 year mortality rate of 43%.[4] Published data suggest that 50-70% of exacerbations are due to respiratory infections[5] (including bacteria, respiratory viruses and atypical organism), 10% are due to environmental pollution (depending on season and geographical placement)[6], and upto 30% are of unknown etiology.[4] Identifying risk factors in a particular geographical location by examining and investigating patients of AECOPD would help in reducing the future episodes and lead to better quality of life.

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II. Methods

The study was conducted in a tertiary care hospital in Ahmedabad, Gujarat. This study was approved by institutional review board. It was a prospective observational study from August 2015 - December 2017.

a) Selection Criteria

i. *Inclusion*

- Age more than 18 years.
- Patients who were diagnosed with COPD previously and came with acute exacerbation.

(COPD was defined according to GOLD criteria[7] with compatible spirometry records and AECOPD - acute exacerbations of chronic obstructive pulmonary disease was kept as a diagnosis when these known COPD cases fulfilled anthonisen[2] criteria.)

ii. *Exclusion*

- Patients admitted with breathlessness but with a different cause such as heart failure, pneumothorax or pulmonary thromboembolism).
- Patients who were not compliant with baseline home based COPD prescribed treatment.
- Immunocompromised patients (HIV, malignancy or immunosuppressive therapy).
- Critically ill patients admitted in intensive care units.

Upon admission to the hospital with suspected AECOPD and having ruled out other possible causes of breathlessness, a complete clinical history with demographic factors, history of hospitalizations and prior exacerbations in recent years as well as history of contact with family member having respiratory infection was obtained.

Previous treatment records and latest spirometry results were also collected. All routine

investigation including complete blood count, liver and renal function test, as well as blood gas analysis was done. Sputum was collected from each patient before starting antibiotic treatment. Sputum was cultured only if it was considered adequate. (<10 epithelial cells and >25 polymorphonuclear leukocytes).

Patients were kept on routine follow up after discharge from hospital and monitored for treatment adherence, any future episode of exacerbation or other adverse outcome during the follow up period between August 2015 - December 2017.

The data were collected in a Microsoft access database and analyzed using SPSS for windows, version 20.0 (IBM Corporation, Armonk, NY).

Comparison between means were performed using student's t test for independent samples or the Mann-Whitney U test for variables that did not meet the criteria for normality. For comparison between proportions, Chi square or Fischer's test was used. P value <0.05 was taken for statistical significance.

III. Results

We prospectively studied 100 patients who were admitted with a diagnosis of AECOPD in department of general medicine of a tertiary care hospital, Gujarat, between August 2015 to December 2017.

The following observations were made based on data analysis of these patients.

Patient Characteristics

Category / Parameter	Values
Age (Years) (Mean ± SD)	53.92 (9.63)
Sex	
Males (%)	93
Females (%)	07
Duration of COPD (Years) (Mean ± SD)	13.9 ± 5.1
Active Smokers (%)	77
Mean FEV1 (%) (Mean ± SD)	31.6 ± 14.7
History of Two or More Exacerbation in Last Year (N = Number of Patients)	54
Comorbidities	
Hypertension (%)	27
Diabetes Mellitus (%)	13
Tuberculosis (%)	09
Cerebrovascular Disease (%)	03
Severity of COPD (as per GOLD)	
Mild (FEV1 > 80%)	03
Moderate (FEV1 50 - 79%)	29
Severe (FEV1 30 - 49%)	51
Very Severe (FEV1 < 30%)	17
Duration Of Hospital Stay (Mean ± SD)	6.64 ± 4.25

Table 1: Addiction Wise Distribution

Addiction	No. of Patients (Out of 100)
Smoking	77 (77%)
Alcohol	29 (29%)

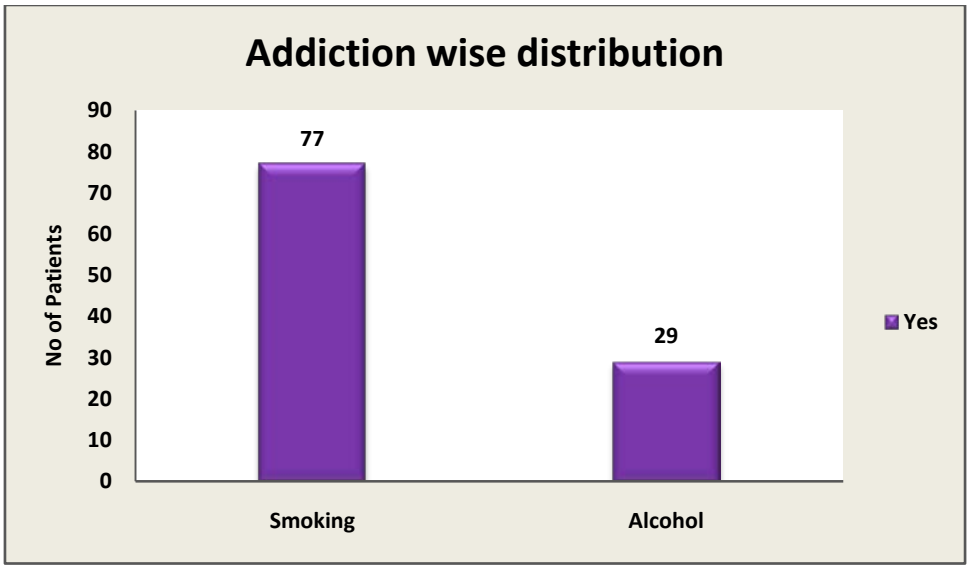

Table 2: Association between Smoking and Frequent Exacerbations

History of Smoking (Atleast Ten Pack Years)	History of Frequent Exacerbations (2 or More per Year)	
	Present	Absent
Present (N=77)	51 (66.23%)	26 (33.76%)
Absent (N=23)	03 (13.04%)	20 (86.95%)
	Total = 54	Total = 46
	P Value = 0.000007 (<0.05)	

Table 3: Severity of Exacerbation (Based on Anthonisen Criteria) and Outcome

Severity of Exacerbation	Outcome		P Value
	Survived (N=81)	Expired (N=19)	
Type 1 (N=21)	06 (28.57%)	15 (71.42%)	P = <0.00001 (<0.05)
Type 2 (N=38)	35 (92.10%)	03 (07.89%)	P = 0.2693 (> 0.05)
Type 3 (N=41)	40 (97.56%)	01 (02.43%)	

In the present study, sputum culture turned out to be positive for bacterial etiology in 60 patients out of 100. Remaining 40 patients had sputum culture result negative.

Table 4: Etiology Wise Distribution

Etiology	No. of Patients (Out of Total 100)
Bacterial	60 (60%)
Pseudomonas Aeruginosa	26 (43.3%)
Haemophilus Influenza	16 (26.6%)
Moraxella Catarrhalis	8 (13.3%)
Streptococcus Pneumoniae	5 (08.3%)
Staphylococcus Aureus	3 (05.0%)
E. Coli	2 (03.3%)
Unknown	40 (40%)
Total	100 (100%)

Table 5: Comparison of Chest Radiograph with Outcome

Outcome of Patients (Total Patients N=100)	Bilateral Infiltrates (N=13)	Unilateral Infiltrates (N=50)	Normal (N=37)
Survived (N=81)	-	44	37 (100%)
Expired (N=19)	13 (68.42%)	6 (31.50%)	-

Table 6: Association between Sputum Result and Outcome

Outcome	Sputum Culture Positive (N=60)	Sputum Culture Negative (N=40)	No. of Patients	P Value
Survive	44 (73.33%)	37 (92.5%)	81 (81%)	0.0166
Expired	16 (26.66%)	3 (07.5%)	19 (19%)	
Hospital Stay	7.27 ± 3.08	6.02 ± 2.35	100 (100%)	0.0318

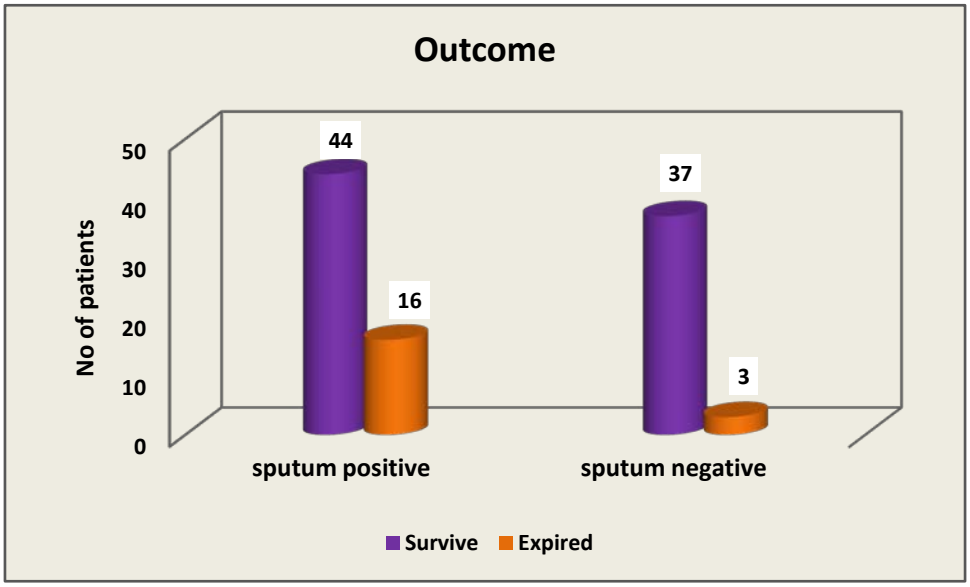

Table 7: Association between Prior History of Exacerbation and Mortality

Prior History of Exacerbation (2 or More per Year)	Outcome	
	Survived (N=81)	Expired (N=19)
Present (N=54)	38 (70.37%)	16 (29.62%)
Absent (N=46)	43 (93.47%)	03 (06.52%)
	Total = 81	Total = 19
	P Value = 0.0033 (<0.05)	

IV. Discussion

This prospective observational study of 100 patients admitted with AECOPD in department of general medicine of a tertiary care hospital, Ahmedabad included a 2-year follow up period and was intended to identify risk factors for acute exacerbations in patients with COPD.

Overall, tobacco accounts for around 80-90% risk of developing COPD.[8] In our study, 77% of patients were smokers, none of which had quit smoking. Shumail Bashir et al[9] found 80% smokers in his study also. Our study also showed that smoking was associated with higher frequency of exacerbations in patients with COPD. This is due to the fact that smoking leads to decrease in mucociliary clearance and innate immunity[10].

On admission, according to anthonisen[2] criteria, all patients were divided into types of exacerbation (type 1/2/3). It showed that patients with more severe exacerbation had higher mortality. 71.42% patients with type 1 exacerbations whereas only 02.43% patients with type 3 exacerbation died during follow up. This data was statistically significant with p value <0.05, however there was no statistically significant difference between outcome for type 2 and type 3 exacerbations (p=0.269). N. A. Dewan et al[11] study also showed significant difference between type 1 and type 3 exacerbations (22% v/s 07.1%; p=0.037) and non significant difference between type 2 and 3 exacerbations (22% v/s 12.4%; p=0.081).

In our study, 60% of patients had sputum culture positive for different bacteria. Most common bacteria isolated was Pseudomonas aeruginosa (43.3%) followed by H. influenza (26.6.%) and Moraxella catarrhalis (13.3%). Other bacteria isolated were streptococcus pneumonia, staphylococcus aureus and E. coli. In the remaining 40% of patients with AECOPD, sputum culture was negative. Kolarov et al[12] study also found Pseudomonas aeuruginosa (38.9%) as the most common bacteria to be isolated in hospitalized patients followed by H. influenza (26.59%). Another study by Ramon Boixeda et al[13] showed 28.03% bacterial, 10.6% viral and 61.37% non infective etiology as a cause for

exacerbation of COPD. The cause of 40% sputum negative result in our study may be attributed to faulty sputum collection or transport, presence of atypical organism or virus, or non-infective etiology.

Comparison with Previous Study for Commonly Isolated Organisms.

Isolated Organism	Present Study (%)	Kolarov et al[12] (%)
Psedumonas Aeruginosa	43.3	38.92
H.Influenza	26.6	26.59
Moraxella Catarrhalis	13.3	03.19
Streptococcus Pneumonia	08.3	17.02

We obtained chest x-ray from each of the total 100 patients out of which 50 had unilateral and 13 had bilateral interstitial infiltrates. Bilateral infiltrates on chest x-say was associated with a poor outcome, which was statistically significant (p value <0.05). All 37 patients with normal x-ray finding survived. Similar to the study by Lieberman et al.[14], the presence of infiltrates was associated with higher rate of isolation of organisms, an increased incidence of complications, increased morbidity and mortality. This may be indicative of higher level of lung damage or poor individual immune response against respiratory pathogens and hence worse outcome in terms of survival.

In our study, 26.66% of sputum positive patients expired compared to only 7.5% of sputum negative patients. This data was statistically significant. This is suggestive that infective etiology for acute exacerbation of COPD had higher mortality as compared to non-infective etiology. Duration of hospital stay was also higher for patients with infective etiology. Karin H et al[15] study also showed mortality in 8.22% (mean) but only 7.5% had sputum culture negative Whereas 9.09% had sputum positive result.

We also report increased mortality in AECOPD patients with prior history of frequent exacerbations (2 or more per year). 29.62% of patients with frequent exacerbations expired compared to only 6.52% of patients without prior exacerbations. This data was statistically significant. Naresh A Dewan et al[11] study also reported increased risk of failure with increase in the number of exacerbations. His study reported that risk of atleast one failure increased to 100% with history of four or more exacerbations in past 24 months.

V. Study Limitation

Unfortunately, we could not obtain samples for virological evaluation of sputum or other respiratory secretions. In our study, number of sputum negative result may be containing virus as a possible cause of exacerbation which was missed. Though sputum was also sent for antibiotic sensitivity, the information obtained from a very few positive samples is difficult to analyze as a whole. The sample population studied belonged to in-hospital patients admitted with AECOPD only. Those who were treated on OPD basis were not included. Lastly the sample size was not big enough to extrapolate the result for a given locality.

Nonetheless our study provides important information regarding cause of frequent exacerbations in patients with COPD and other prognostic markers, these will help in prevention as well as prompt treatment in future to reduce burden of AECOPD on health care system.

VI. Conclusion

With the above study, we conclude that respiratory infections are a major cause of acute exacerbation in patients with COPD. Smoking is found as a major risk factor in COPD patients which contributes to exacerbations.

References Références Referencias

1. Murray C. J., Lopez A. D. alternative projection of mortality and disability by cause 1990-2020: global burden of disease study. Lancet 1997: 349: 1498-504.
2. Global Strategy for the Diagnosis Prevention and Management of COPD: NHLBI / WHO Workshop Report: March 2001.
3. Anthonisen N. R, Manfreda J., Warren C. P., et al. Antibiotic therapy in exacerbations of chronic obstructive pulmonary disease. Ann Intern Med 1987: 106: 196-204.
4. Connors A. F. Jr, Dawson N. V., Tomas C., et al. Outcomes following acute exacerbations of severe chronic obstructive lung disease. The support investigators (Study to Understanding Prognosis and Preferences for Outcomes and Risks of Treatment. Am. J. Respir. Crit. Care Med 1996: 154: 959-67.
5. Ball P. Epidemiology and treatment of chronic bronchitis and its exacerbations. Chest 1995: 108: 43-52S.
6. Sunyer J, Saez M, Murillo C, et al. Air pollution and emergency room admission for chronic obstructive pulmonary disease. Am J Epidemiol 1993: 137: 701-5.
7. The Global Initiative for Obstructive Lung Disease. http://www.goldcopd.org/gold-2017-Global Strategy for the Diagnosis, Management and Prevention of COPD.
8. Sachs A. P., Koeter G. H., Groenier K. H., Van der Waaji D, Schiphuis J., Meyboom de Jong B. Changes in symptoms, peak expiratory flow, and sputum flora during treatment with antibiotics of

exacerbations in patients with chronic obstructive pulmonary disease in general practice. Thorax 1995: 50: 758-63.
9. Bashir S., Muzamil J., Guru F. R., Mohsin N., Nabi F., Kanwar M. S. Patterns of infections in chronic obstructive pulmonary disease exacerbations and its outcome in high dependency area, intensive care setting in a tertiary care hospital. Community Acquired Infection. 2016 Jul 1: 3 (3): 77.
10. Sethi S. Bacterial infections and the pathogenesis of COPD. Chest 2000: 117 (5): 286s-91s.
11. Dewan N. A., Rafique S., Kanwar B., Satpathy H., Ryschon K., Tillotson G. S., Niederman M. S. Acute exacerbation of COPD: factors associated with poor treatment outcome. Chest Journal. 2000 Mar 1: 117 (3): 662-71.
12. Kolarov et al. Vojnosanit Pregl 2017: 74 (3): 227-31.
13. Boixeda, R., Rabella, N., Sauca, G., Delgado, M., Martínez-Costa, X., Mauri, M., Vicente, V., Palomera, E., Serra-Prat, M. and Capdevila, J. A., 2012. Microbiological study of patients hospitalized for acute exacerbation of chronic obstructive pulmonary disease (AE-COPD) and the usefulness of analytical and clinical parameters in its identification (VIRAE study). International Journal of Chronic Obstructive Pulmonary Disease, 7, P. 327.
14. Lieberman D., Lieberman D., Gelfer Y., Varshavsky R., Dvoskin B., Leinonen M. et al. pneumonic v/s nonpneumonic acute exacerbation of COPD. Chest 2002: 1264-70.
15. Groenewegen K. H., Wouters E. F. Bacterial infections in patients requiring admission for an acute exacerbation of COPD: a 1-year prospective study. Respiratory medicine. 2003 Jul 31: 97 (7): 770-7.

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Isolated Extrahepatic Intraductal Papillary Neoplasm of the Bile Duct: A Rare Type of Bile Duct Tumour

By Akkaraphorn Deeprasertvit
Police General Hospital

Introduction- Intraductal papillary neoplasm of the bile duct (IPNB) is a relatively raretype of bile duct tumor. The neoplasm features an intraductal papillary growth of neoplastic biliary epithelia with a fibrovascular stalk.[1] Its nomenclature was given regarding the tumor characters, for example, biliary papillomatosis[2], mucin-secreting bile duct adenoma[3], mucin-producing bile duct tumor[4], or mucin - producing cholangiocarcinoma.[5,6] Term "intraductal papillary neoplasm of the bile duct" is a recent terminology.[7] According to the latest classification of bile duct tumors, benign IPNB is classified as a pre - malignant lesion of intraductal - growth and papillary type of cholangiocarcinoma.[8] The development of IPNB follows an adenoma-carcinoma sequence that correlates with the stepwise activation of common oncogenic pathways.[9] IPNB usually progresses slowly bearing a better prognosis compared to the conventional cholangiocarcinoma.[10]

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Isolated Extrahepatic Intraductal Papillary Neoplasm of the Bile Duct: A Rare Type of Bile Duct Tumour

Akkaraphorn Deeprasertvit, M.D. α & Wirada Wandee, M.D. σ

I. Introduction

Intraductal papillary neoplasm of the bile duct (IPNB) is a relatively rare type of bile duct tumor. The neoplasm features an intraductal papillary growth of neoplastic biliary epithelia with a fibrovascular stalk.[1] Its nomenclature was given regarding the tumor characters, for example, biliary papillomatosis[2], mucin-secreting bile duct adenoma[3], mucin-producing bile duct tumor[4], or mucin-producing cholangiocarcinoma.[5,6] Term "intraductal papillary neoplasm of the bile duct" is a recent terminology.[7] According to the latest classification of bile duct tumors, benign IPNB is classified as a pre-malignant lesion of intraductal-growth and papillary type of cholangiocarcinoma.[8] The development of IPNB follows an adenoma-carcinoma sequence that correlates with the stepwise activation of common oncogenic pathways.[9] IPNB usually progresses slowly bearing a better prognosis compared to the conventional cholangiocarcinoma.[10]

The principle of intraductal papillary neoplasm of the bile duct treatment is similar to that of cholangiocarcinoma. The primary treatment of choice for an operable case is surgical resection. The systemic adjuvant chemotherapy and radiation in IPNB remain controversial.

II. Case Presentation

A 60-year-old Thai male had been experiencing right upper quadrant abdominal discomfort, progressive jaundice with generalized pruritis and loss of appetite for two weeks. He did not notice urine and feces discoloration. He had been diagnosed with pulmonary tuberculosis undergoing regular anti-TB medication 2 months earlier. Otherwise, he had been healthy with no history of parasitic infestation or hospitalization. Physical examination revealed obvious icteric sclera. Initial laboratory tests included total bilirubin 19.47 mg/dL, direct bilirubin12.77 mg/dL, aspartate aminotransferase (AST) / alanine aminotransferase (ALT) 74/52 IU/L (<35 IU/L), and alkaline phosphatase (ALP) 371 IU/L (46-116 IU/L).

He was scheduled for endoscopic retrograde cholangiopancreatography (ERCP) which demonstrated dilatation of the common bile duct with the mucinous plug at the ampulla of Vater (Figure 1, 2). The contrast did not fill intrahepatic duct. The imaging includes magnetic resonance imaging with magnetic resonance cholangiopancreatography (MRI with MRCP) demonstrated a severe narrowing with surrounding soft tissue mass at distal common bile duct. Neither lymph node nor distant organ metastasis was detected.

Fig. 1: ERCP Demonstrated a Dilatation of Common Bile Duct with Mucinous Plug in Common Bile Duct

Fig. 2: ERCP Demonstrated a Mucinous Plug at Ampulla of Vater

The patient underwent the endoscopic ultrasound (EUS) one day after his imaging. Diffusely dilated intrahepatic and common bile duct with an irregular intraductal polypoid lesion at the distal

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common bile duct causing the obstruction were found. The ultrasound revealed an enlarged lymph node size 1.8 cm at the pancreatoduodenal groove. Elastography showed a heterogeneous pattern. The pancreas and its duct appeared normal.

The imaging concluded a distal bile duct obstruction suggestive of intraductal papillary neoplasm of the bile duct (IPNB). The patient was in good performance status and the limitation of disease only in the bile duct; we planned to perform surgery.

Three weeks before the surgical appointment, he underwent right percutaneous transhepatic biliary drainage (PTBD) using 8 Fr drainage catheter with a tip at the hilar region. Cholangiogram showed dilated intrahepatic duct without demonstrable mass nor stones.

The operation was carried out as scheduled; an upper midline incision was performed. Regarding intraoperative findings, apart from the lesions depicted on preoperative imaging, there were several enlarged lymph nodes at station 7, 8, and 12. Common bile duct size was 2 cm in diameter. We performed Pancreaticoduodenectomy (PD). Choledochoscope allowed clear visualization of the mucinous plug at distal common bile duct and no other lesion at proximal bile duct nor intrahepatic duct. Intraoperative frozen section confirmed uninvolved margin. Total operative time was 7 hours and estimated blood loss was 400 ml. The intraoperative and immediate postoperative course was uneventful.

The surgical specimens consisted of distal part of stomach attached to a segment of the duodenum, head of the pancreas, 2 cm in length of the distal common bile duct and gallbladder. Examination of specimens disclosed an ill-defined firm gray-white mass measuring 2.2*1.5*0.5 cm at the distal common bile duct. Multiple enlarged lymph nodes were seen in mesenteric fat of duodenum, lymph node station 7, 8 and 12. (Figure 3).

Fig. 3: Papillary Growth Lesion at the Distal Common Bile Duct

The histopathology report revealed well-differentiated adenocarcinoma of the distal common bile duct. Sections showed marked dysplasia of bile duct mucosa with significant mural fibrosis (Figure 4, 5, 6). However, the definite malignant gland is not identified at common bile duct. There was a metastasis of well-differentiated adenocarcinoma in 4 regional lymph nodes (surrounding distal common bile duct mass) (Figure 7). Duodenal wall and pancreatic duct were uninvolved. All resected margins were uninvolved with no lymphovascular invasion.

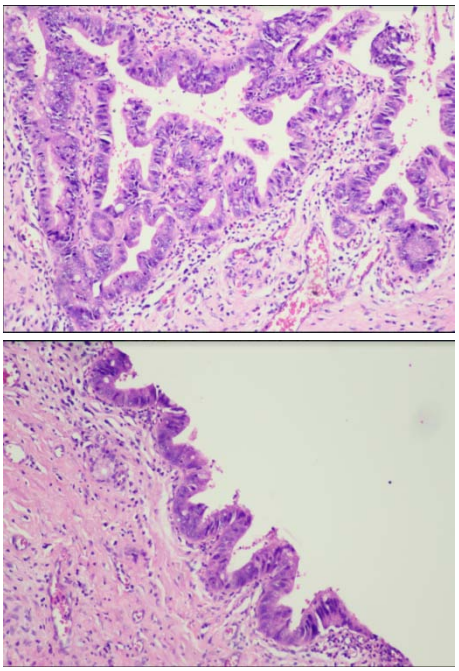

Fig. 4, 5: Marked Dysplasia of Common Bile Duct at X100

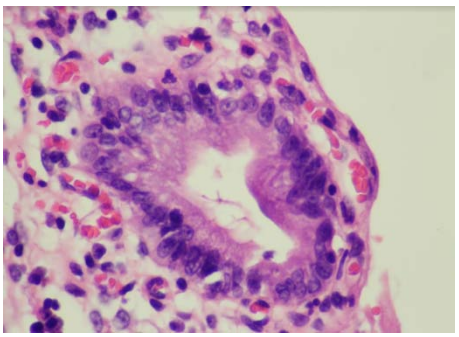

Fig. 6: Marked Dysplasia of Common Bile Duct at X400

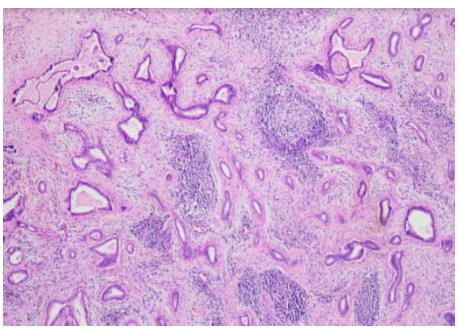

Fig. 7: Resected Lymph Node shows Component of Dysplastic Glands suggesting a Metastasis of Adenocarcinoma

His pathology report showed lymph node involvement, therefore, he was given Gemcitabine plus Cisplatin for postoperative systemic chemotherapy. Whole abdomen CT scan showed no evidence of tumor recurrence at 3 months post-operation. However, the follow up CT scan found a small liver nodule at segment 5, suggesting a metastasis.

III. Discussion

We have described a case of isolated extrahepatic, comparatively rare, intraductal papillary neoplasm of the bile duct (IPNB). The patient underwent radical surgery and received adjuvant chemotherapy.

Benign IPNB is a precancerous condition of intraductal-growth and papillary type of the cholangiocarcinoma.[8] It usually progresses slower and have better prognosis compared to the conventional cholangiocarcinoma.[10] According to latest classification of IPNB based on preoperative imaging and the pathological findings of surgical specimens, there are 5 classification: Class I – classical intrahepatic IPNB; Class II - extrahepatic IPNB; Class III - cystic variant; Class IV - micro-papillary lesion; and, Class V - macroinvasion.[11]

Previous studies report a more aggressive behavior in the extrahepatic type compared to the intrahepatic type.[8,12,13] From Luvira et al with 103 IPNB case study, all the class II tumor (extrahepatic IPNB) are malignant IPNB and have the significant shorter survival period.[11]

The patient in our case report was diagnosed with a class II IPNB. Although he was treated with radical surgery and adjuvant therapy, the metastasis and worsen condition could be expected.

IV. Conclusion

This case report showed a recurrence in intraductal papillary neoplasm of bile duct (IPNB) patient despite he had performed radical surgery and received postoperative chemotherapy. It demonstrated the poor prognosis of the more aggressive type of the bile duct neoplasm, a purely extrahepatic type.

References Références Referencias

1. Chen T. C., Nakanuma Y., Zen Y., et al. Intraductal papillary neoplasia of the liver associated with hepatolithiasis. Hepatology 2001: 4: 651-8.
2. Okulski E. G., Dolin B. J., Kandawalla N. M. Intrahepatic biliary papillomatosis. Arch Pathol Lab Med 1979: 103 (12): 647-9.
3. Oshikiri T., Kashimura N., Katanuma A. et al. Mucin-secreting bile duct adenoma-clinicopathological resemblance to intraductal papillary mucinous tumor of the pancreas. Dig. Surg. 2002: 19 (4): 324-7.
4. Shibahara H., Tamada S., Goto M. et al. Pathologic features of mucin-producing bile duct tumors: two histopathologic categories as counterparts of pancreatic intraductal papillary - mucinous neoplasms. Am. J. Surg. Pathol 2004: 28 (3): 327-38.
5. Chou S. T., Chan C. W. Mucin-producing cholangiocarcinoma: an autopsy study in Hong Kong. Pathology 1976: 8 (4): 321-8.
6. Chen M. F., Jan Y. Y., Chen T. C. Clinical studies of mucin-producing cholangiocellular carcinoma: a study of 22 histopathology - proven cases. Ann. Surg. 1998: 227 (1): 63-9.
7. Zen Y., Fujii T., Itatsu K. et al. Biliary papillary tumors share pathological features with intraductal papillary mucinous neoplasm of the pancreas. Hepatology 2006: 44 (5): 1333-43.
8. Nakanuma Y., Miyata T., Uchida T. Latest advances in the pathological understanding of cholangiocarcinomas. Expert Rev Gastroenterol Hepatol 2015: 22: 1-5.
9. Schlitter A. M., Born D., Bettstetter M. et al. Intraductal papillary neoplasms of the bile duct: stepwise progression to carcinoma involves common molecular pathways. Mod Pathol 2014: 27 (1): 73-86.
10. Jan Y. Y., Yeh C. N., Yeh T. S., Chen T. C. Prognostic analysis of surgical treatment of peripheral cholangiocarcinoma: two decades of experience at Chang Gung Memorial Hospital. World J. Gastroenterol 2005: 11 (12): 1779-84.
11. Luvira V., Somsap K., Pugkhem A., et al. Morphological Classification of Intraductal Papillary Neoplasm of the Bile Duct with Survival Correlation. Asian Pac J Cancer Prev: 18 (1): 207-13.
12. Choi S. C., Lee J. K., Jung J. H., et al. The clinicopathological features of biliary intraductal papillary neoplasms according to the location of tumors. J Gastroenterol Hepatol 2010: 4: 725-30.
13. Luvira V., Pugkhem A., Bhudhisawasdi V., et al. Long-term outcome of surgical resection for intraductal papillary neoplasm of the bile duct. J Gastroenterol and Hepatol 2017: 32: 527-33.

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Assessment of the Risk Factors in Clinical Cardiovascular events using Framingham Risk Score

By Nader Hamoud Khair, Kusu Susan Cyriac & Nawres Taha Abdullah
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Abstract- *Objectives:* To explore the role of risk factors and biomarkers, in anticipating the possibility of developing cardiovascular events in a group of patients using the Framingham Risk Score (FRS).

Design: Participants Population-based sample of individuals aged between 40 and 75 years old (125 women and 132 men). A Prospective observational study conducted in medicine wards of a tertiary-care hospital for six months. The newly admitted case charts diagnosed with hypertension, diabetes and geriatric patients. We collected the required data in form case sheets, treatment chart, lab master, the physical examination of the medication with the patient is also verified. We used a prepared questionnaire to gather information of patient data collection to collect all the details like inpatient number, age, sex, social status, laboratory data, weight, height, Blood Pressure (BP), family history and therapeutic management, then introduced the data to FRS risk score calculator. FRS is designed to predict the risk of heart problems (including mortality) caused by coronary heart disease and non-fatal myocardial infarction for ten years to come in the life of the individual, considering the risk factors score calculated for each risk factor in the study sample.

Keywords: *framingham risk score, risk factors, cardiovascular disease, risk estimation.*

GJMR-F Classification: *NLMC Code: QY 400*

Strictly as per the compliance and regulations of:

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Nader Hamoud Khair [α], Kusu Susan Cyriac [σ] & Nawres Taha Abdullah [ρ]

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Results: Altogether, 257 cases were analyzed and when compared the Risk Factors (RF) with of the participants using FRS to classify them according to their risk score, the percentage 57 percent (n equals 147) as Low risk, 6 percent (n equals 15) as Moderate-risk, 37 percent (n equals 95). Studying the risk for developing CVD event according to their Blood Pressure, out of 50 patients with Stage 2 BP, 50 percent (n equals 25) of the individuals had high-risk score for developing CVD events. Obese individuals were 13 percent (n equals 33) among sample, and all of them had high-risk according to FRS. Non-Diabetic patients had lower risk according to FRS than Diabetics with 70 percent (n equals 23) out of 33 Non-Diabetic individuals in the sample having low-risk and 61 percent (n equals 137) out of 224 Diabetics having high-risk. Studying the effect of Lipid profile, results showed the significance of the role of HDL in preventing cardiovascular events, 78 percent (n equals 18) out of 23 individuals with HDL levels lower than 35mg/dL showed higher risk.

Conclusion: The Framingham Risk Score helped in investigating the status of cardiovascular patients and predicting the incidence of CVD events in 10 years by determining risk factors.

The study intended to assess the role of Risk Scores in indication of likely chances of prevention and for patient's education and understanding chances of increased risks for future cardiovascular diseases by studying patients' forms and then calculating the likelihood of developing a cardiovascular event in the next 10 years of the patient's life using Framingham Risk Score.

Keywords: framingham risk score, risk factors, cardiovascular disease, risk estimation.

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I. Introduction

Cardiovascular diseases (CVDs) continue to be a leading cause of morbidity and mortality among adults around the world. According to the World Health Organization (WHO), 30% of a total of 58 million deaths worldwide in 2005 were due to cardiovascular diseases, mainly heart disease and stroke. The common modifiable Risk Factors (RF) identified were the unhealthy diet, physical inactivity, tobacco use, High Blood Pressure (BP) and blood glucose, abnormal blood lipids, and being overweight. By a few years, cardiovascular disease will be the leading cause of mortality and morbidity worldwide, and developing countries will be the main contributors to this increase. In general, developing nations with poor literacy rates and a lack of awareness regarding disease-related symptoms and associated risk factors, continue to be relatively ill-equipped to handle this burden, the result is worse disease outcomes. Increased CVD-related hospital admissions and mortality among younger subjects inflate disability-adjusted life-years[1]. Cardiovascular disease is the leading cause of death among high-income countries and is projected to be the leading cause of death worldwide by few years. Much of the current research efforts aimed at the identification, modification, and treatment of individual-level risk factors[2]. Framingham Risk Score is one of the first projects of the National Heart, Lung and Blood Institute (NHLBI), was the Framingham Study in 1948, which enabled us to calculate the risk factor for coronary heart disease for ten years. The study involved close collaboration among professionals from three disciplines: Clinical Pharmacy, Biostatistics, and Epidemiology. One of the study's goals was to understand the causes of heart disease by studying the lifestyles of the people of Framingham, Massachusetts. Their first description of their findings was "risk factors in the development of coronary heart disease," which indicated increases in blood pressure and cholesterol

levels, and their association with increased risk of coronary heart disease and acute myocardial infarction. The study also showed that myocardial infarction occur more among women often in later life than in men. This campaign led to the publication of awareness campaigns by the Institute focusing on the importance of high cholesterol and blood pressure as risk factors and lifestyle modification as an essential factor to reduce the risk of heart problems, and introduced the concept of prevention of coronary artery disease and its complications. Clinical trials showed that primary and secondary prevention are possible by lowering blood pressure and total cholesterol[3],[4]. This research focused on the role of Risk Factors in predicting the stage of the CVD and possibility of future cardiovascular events in the patient, and combine the results to come up with a therapeutic regimen that can suit the majority of CVD patients based on a clinical trial.

II. Materials and Methods

A Prospective observational study conducted in ICU, CCU, ICU, Medicine wards of a tertiary-care hospital for six months.

Inclusion Criteria: Patients admitted to the ICU, CCU, Medicine wards, and their medications chart contains one or several drugs of anticoagulants, antiplatelets, thrombolytics, antihypertensive, Antihyperlipidemic agents as well as other medications used to prevent or treat the cardiovascular events in patients.

Exclusion Criteria: Patients admitted to others wards rather than ICU, CCU, Medicine wards, outpatient department.

Method of Collection: We selected the newly admitted case charts to identified wards on a daily basis, and collected the required data in form case sheets, treatment chart, lab master, the physical examination of the medication with the patient is also verified. A prepared questionnaire to gather information from patients that were used with the Framingham Risk Score to predict the risk factors in patients.

Study Procedure: We noted the patient demographics and all medically relevant information in a predefined data collection form. Alternatively, we analyzed these case charts, and followed the changes and the daily notes in the case sheets until the patient is discharged or shift to other wards.

Data Analysis: For every participant, we calculated the Framingham risk score, with ten year occurrence of coronary heart disease including the weighted risk factors age, sex, Body Mass Index (BMI), systolic blood pressure, total and high density lipoprotein cholesterol concentrations, smoking, diabetes mellitus, and family history. We assigned the participants to high-risk, moderate-risk, and low-risk groups based on the calculated Framingham risk scores.

III. Results

Table 1 summarizes the baseline characteristics and cardiovascular risk factors of the 257 participants; the sample included 132 men and 125 women with a mean age of 63.42 years. Figure 1 shows classification of individuals in the sample them to their risk score as follows; the percentage 57 percent (n equals 147) as Low risk, 6 percent (n equals 15) as Moderate-risk, 37 percent (n equals 95).

Table 1: Demographic Characteristics and General Information on Study Members

	Women n=125	Men n=132	Total n=257
Average Age	64.8 Years	63.4 Years	63.42
Average BMI Value	26.9 kg\m2	23.4 kg\m2	24.99 kg\m2
Percentage of Smokers	13%	44%	28%
Percentage of Diabetics	90%	83%	87%
Family History of Disease	36%	25.5%	31%

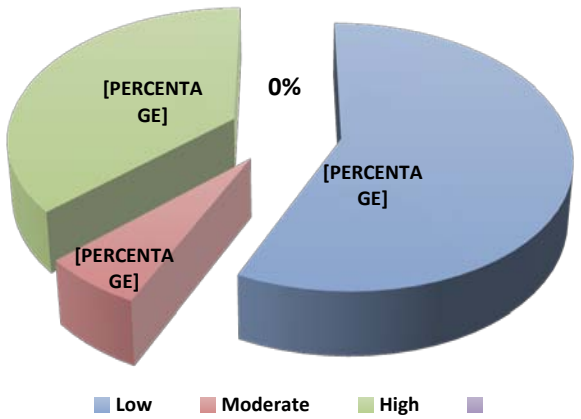

Fig. 1: FRS Overall Risk Factor

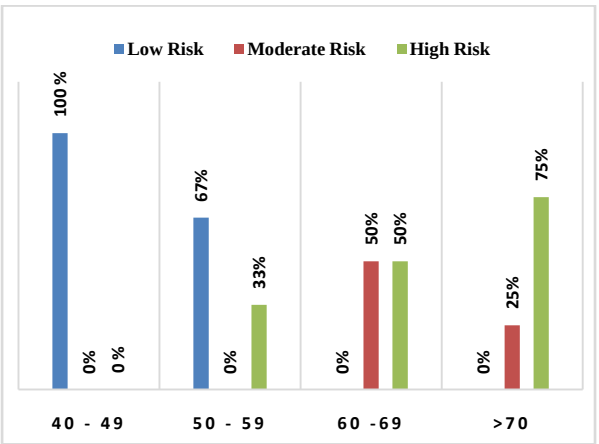

Fig. 2: FRS According to Age Distribution

Age distribution in sample according to age range was as the following; individuals between 40 and 49 years old were 15% of sample (n = 39), individuals in age range 50-59 years old were 19% (n = 49), individuals with age between 60 and 69 were 35% (n = 90) and individuals who were older than 70 years old made 31% of the study sample (n = 79). Figure 2 shows the risk factor distribution for each age group according to FRS.

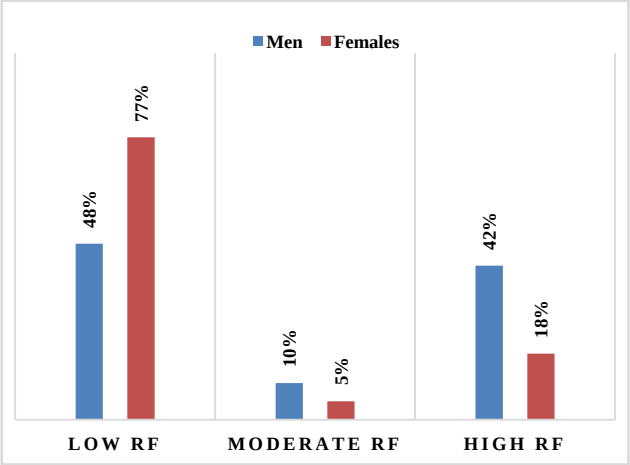

Fig. 3: comparison of Risk Factors between Men and Women

When comparing the risk between Men and Women in the sample, Framingham Risk Score showed that Men were more likely to develop cardiovascular events than women. As shown in Figure 3; 42% of Men (n = 55) had high-risk comparing to only 18% of women (n = 22).

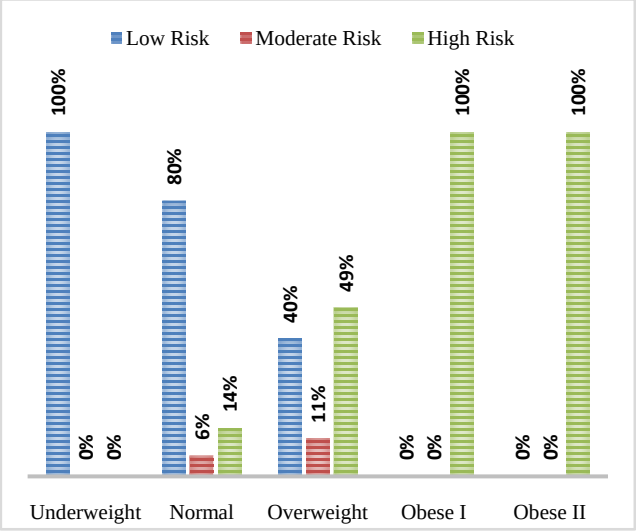

Fig. 4: FRS According to BMI Distribution

Distribution of BMI values of participants in the sample was; 4% (n = 10) of individuals in the sample were underweight with BMI value less than 20, 45% (n = 116) were having Normal BMI values, Overweight individuals were 38% (n = 98) with BMI values between 25 and 30, while 10% (n = 26) were Obese type I with BMI values between 30 and 35 and 3% (n = 7) were Obese type II with BMI values more than 35. According to FRS all obese individuals having BMI more than 30 had the highest risk, the risk of major cardiovascular events with different BMI categories and in normal-weight individuals are shown in Figure 4.

By comparing risk between Smoker and Non-Smoker patients, 80% (n = 148) of Non-Smokers had low-risk factors while 71% (n = 51) of Smokers had high-risk. Also when studying the risk according to alcohol consumption in sample 83% (n = 139) of non-Alcoholics had a low-risk of developing CHD and 67% (n = 60) of Alcoholics had a High-risk.

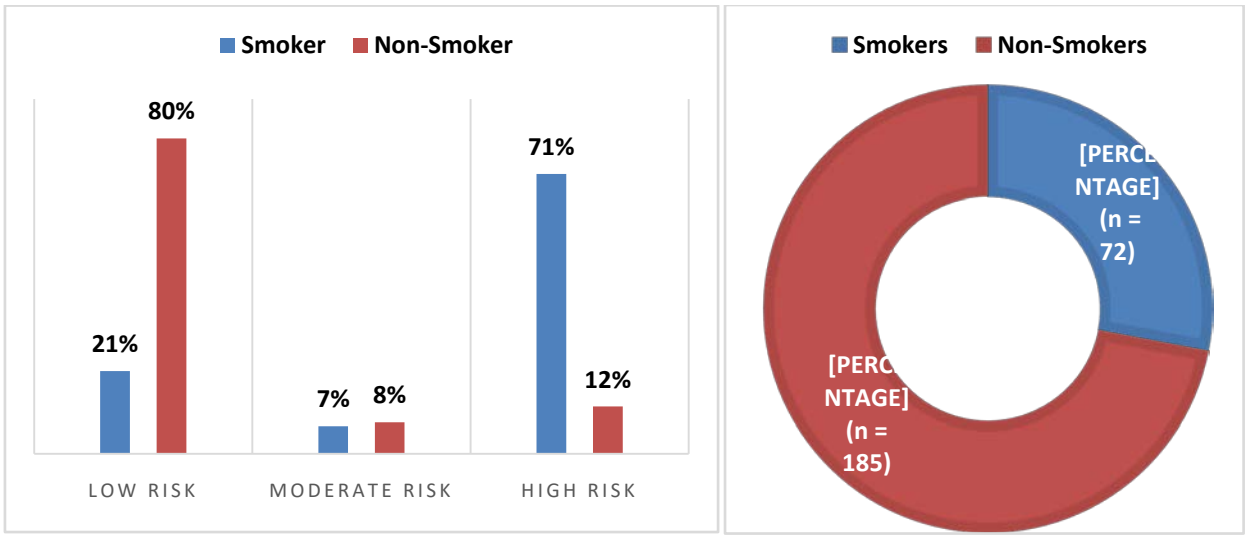

Fig. 5: Percentage of smokers in the sample and Comparison of FRS between Smokers and Non-Smokers

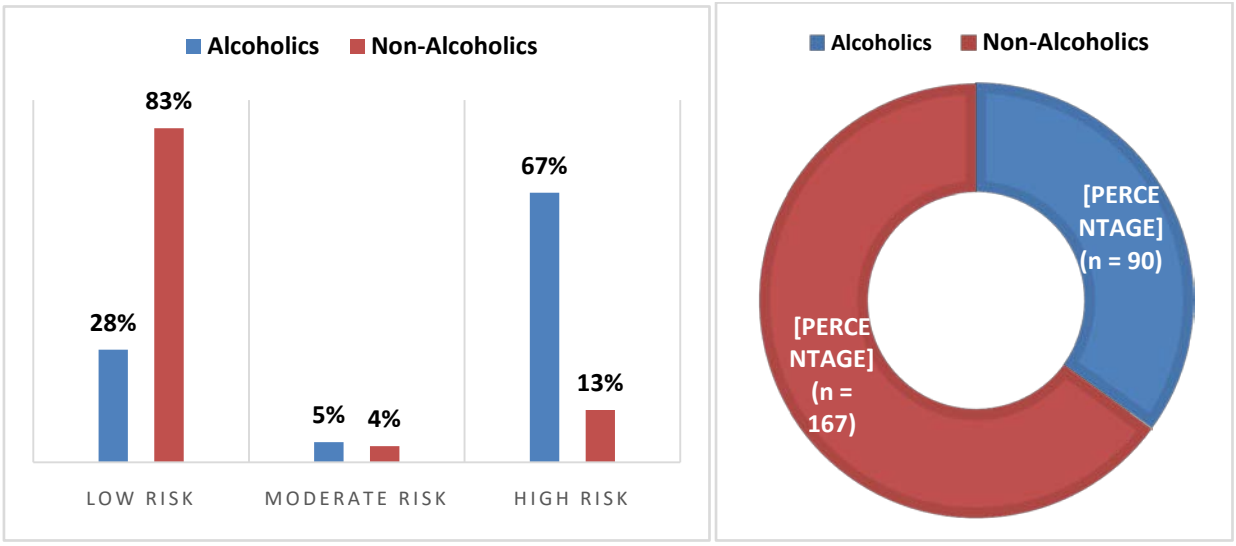

Fig. 6: Percentage of Alcoholics in the sample and Comparison of FRS between Alcoholics and Non-alcoholics

30% (n = 67) of Diabetic Patients in our sample had low-risk, 9% (n = 20) had Moderate-risk, and 61% (n = 137) had High-risk while 70% (n = 23) of Non-Diabetic patients had Low-risk.

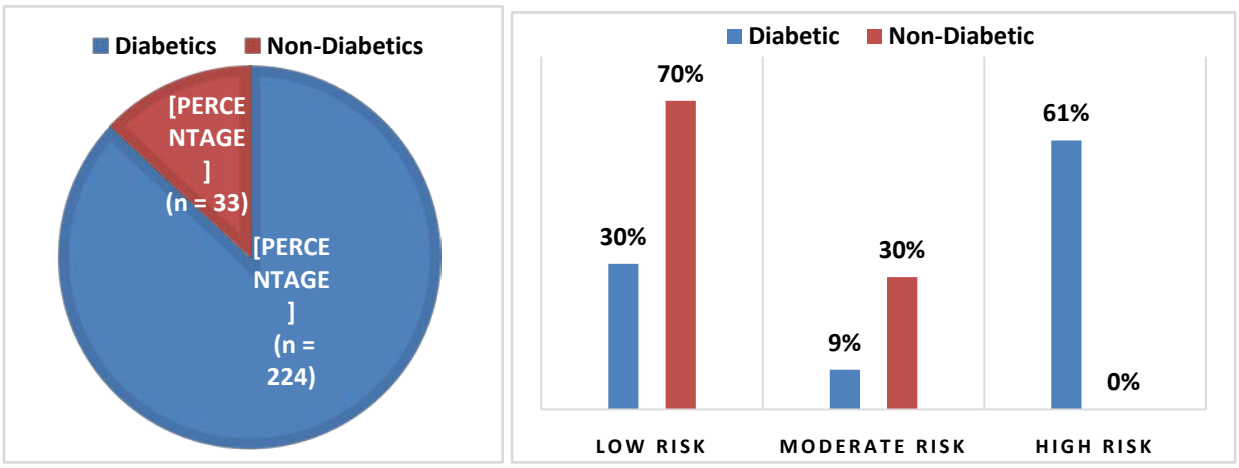

Fig. 7: Percentage of Diabetics in the sample and Comparison of FRS between Diabetics and Non-diabetics

When compared according to their Blood Pressure, we divided individuals in the sample according to using of Antihypertensive therapy as in Table 2. Figure 8 shows risk factors according to Blood Pressure for all the precipitants regardless of whether they are undergoing antihypertensive drug therapy or not; 38% (n = 37) of individuals with Normal Blood Pressure had High RF when compared to individuals with Stage II 50% (n = 25) of them had High RF.

Table 2: Blood pressure Values in Sample

Blood Pressure (mmHg)	Undergoing Antihypertensive Therapy 23% (n = 59)	Not Undergoing Antihypertensive Therapy 77% (n = 198)
Normal 80/120	34% (n = 20)	40% (n = 78)
High >130/90	30% (n = 19)	20% (n = 40)
Stage I -100/140 109/159	17% (n = 10)	20% (n = 40)
Stage II ≥160/110	17% (n = 10)	20% (n = 40)

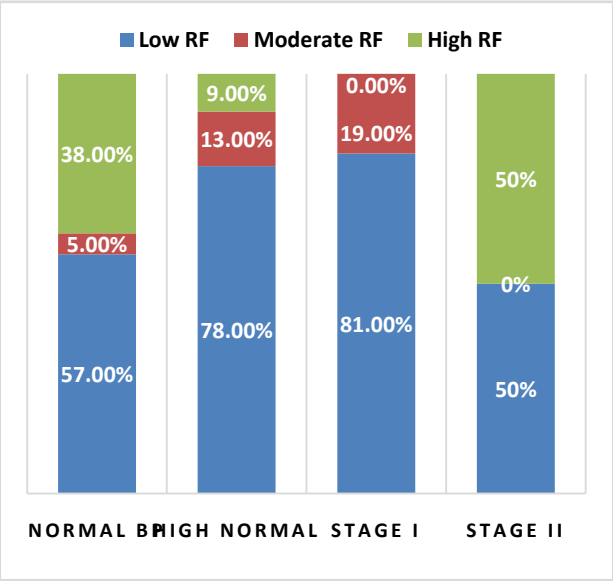

Fig. 8: FRS Risk Ratios according to BP Values

Studying the effect of Lipid profile on developing CVD according to FRS the results of the individuals in the sample showed the protective role of HDL against heart disease, 78% (N = 18) of individuals with HDL levels less than 35 mg/dL had High-risk, while higher levels of HDL showed lower risk[5]. All participants with LDL >160 mg/dL (n = 67) had High RF; that can be explained by the changes in endothelial permeability and the retention of cholesterol-containing LDL particles in the artery wall which leads eventually to Atherosclerosis [6]. 91% (n =26) of patients with TG >250 mg/dL showed higher risk, Hypertriglyceridemia directly influences LDL and HDL, andaccu of atherogenic particles in the circulation explaining the higher risk of CVDs with higher levels of TG[7].

Table 3: Lipid Profile Plasma Levels

	Desirable	Borderline	High-risk
TC mg/dL	<200	200-239	>240
HDL mg/dL	60	35-45	<35
LDL mg/dL	60-130	130-159	>160
TG mg/dL	<150	150-199	>200

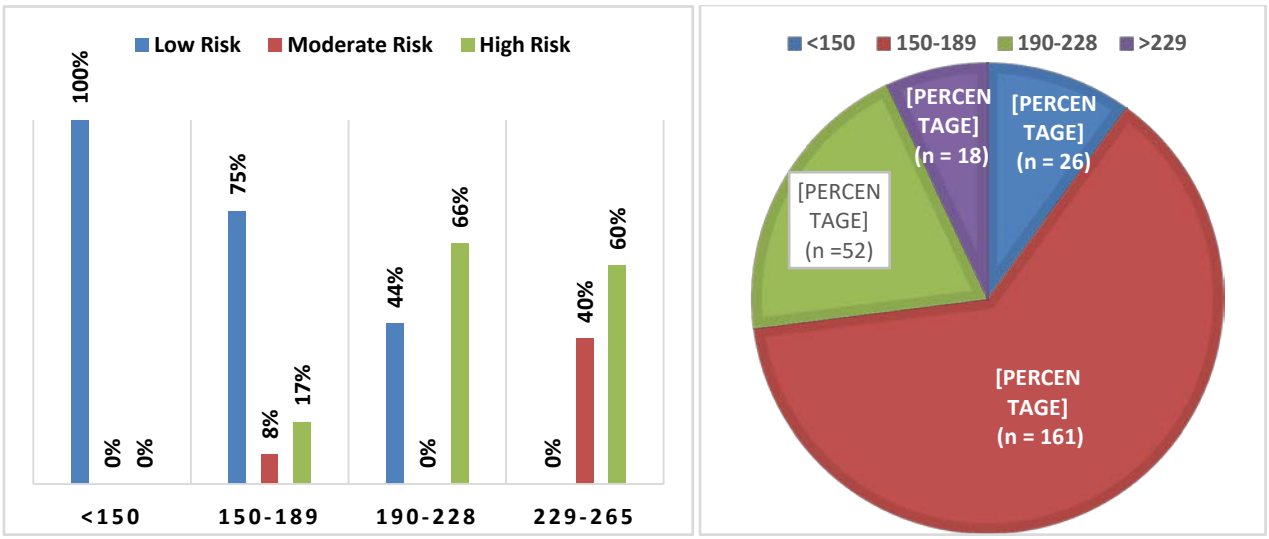

Fig. 9: Distribution of individuals and FRS Risk Ratios in the sample according to TC levels (mg/dL)

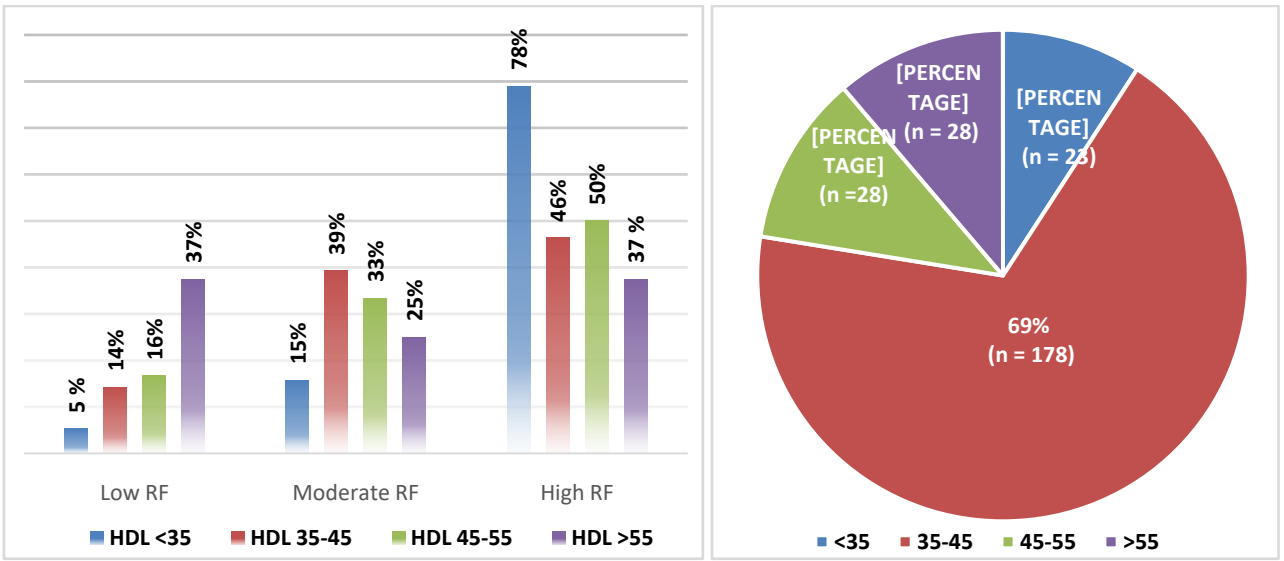

Fig. 10: Distribution of individuals and FRS Risk Ratios in the sample according to HDL levels (mg/dL)

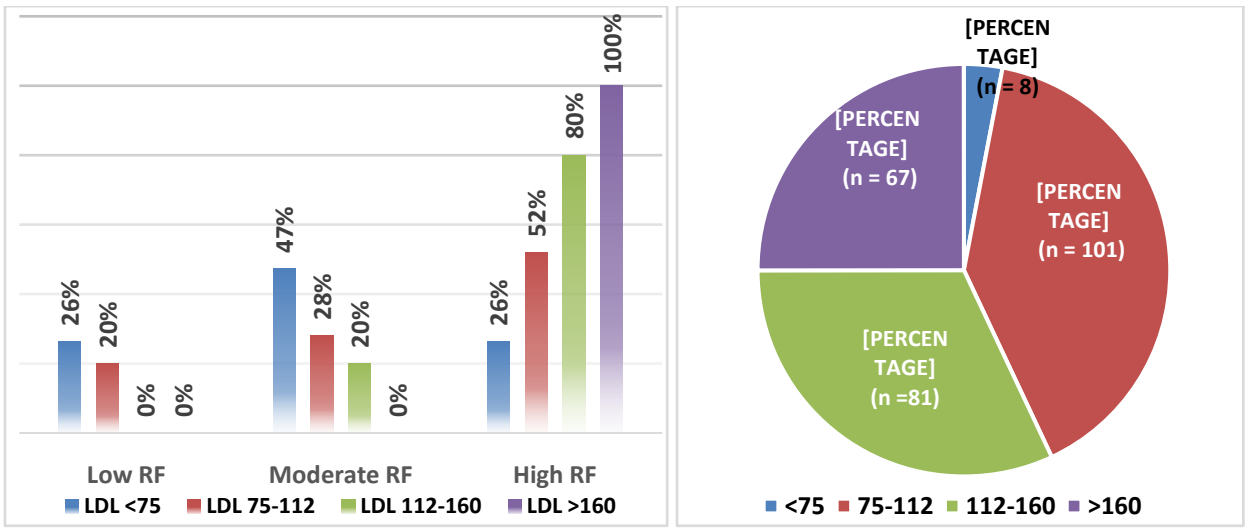

Fig. 11: Distribution of individuals and FRS Risk Ratios in the sample according to LDL levels (mg/dL)

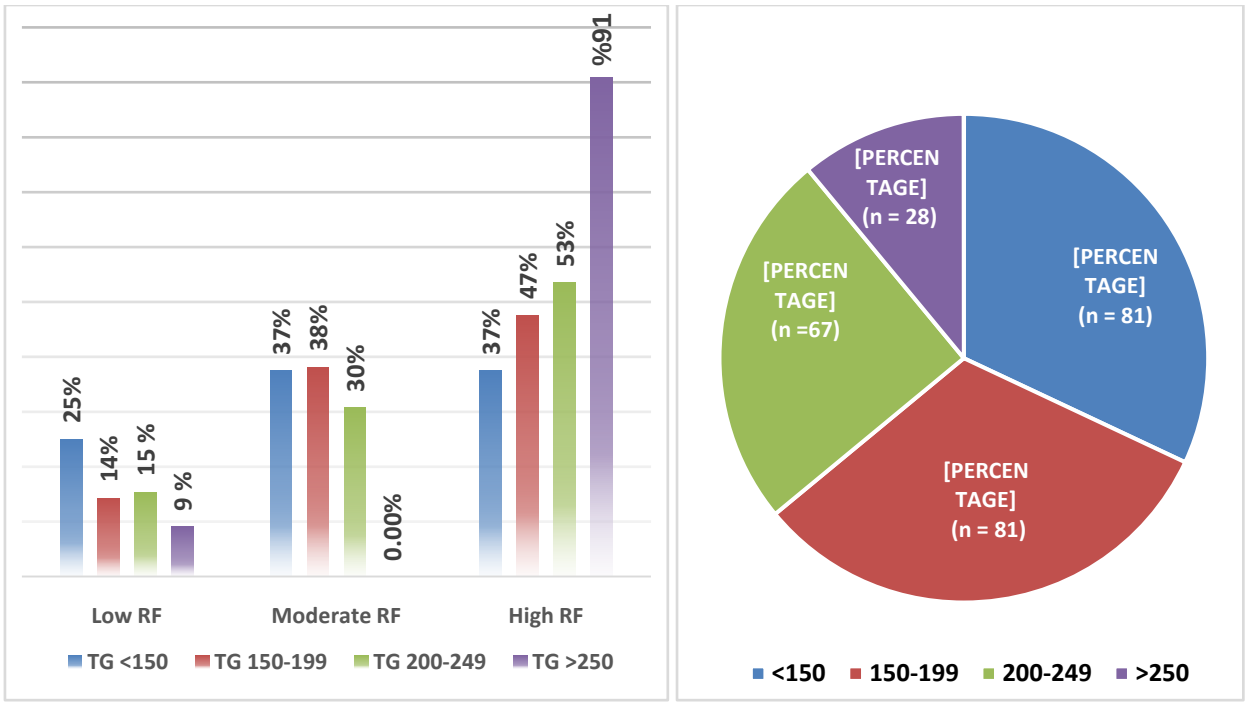

Fig. 12: Distribution of individuals and FRS Risk Ratios in the sample according to TG levels (mg/dL)

IV. Discussion

The Framingham risk score is used to predict the ten-year risk of developing coronary heart disease in people with no history of cardiovascular disease[8]. 75% (n = 59) of participants in age range >70 years old had high-risk, Females in sample had less percentage of having High RF 18% (n = 22) comparing to Men 42% (n = 55). Differences in risk factors, particularly in HDL cholesterol and smoking, explained nearly half of the difference in CVD risk between sexes[9], according to their BMI all Obese individuals (n = 33) having BMI more than 30 had high-risk, the possibility of developing major cardiovascular events is more with higher BMI values than in normal-weight individuals[10].

By comparing risk between Smoker and Non-Smoker patients 80% (n = 148) of Non-Smokers had low-risk factors while 71% (n = 51) of Smokers had high-risk, smoking increases the levels of carbon monoxide (CO) in the blood of the smoker, which in turn causes damage to coronary artery lining, Of the thrombocytes adhesion, allowing clotting of the coronary arteries[11].

83% (n = 183) of non-Alcoholics in the sample had low-risk of developing CHD and 67% (n = 60) of Alcoholics had High-risk, alcohol helps to absorb fat from the intestine, so increase its proportion in blood, especially cholesterol, which helps atherosclerosis and leads to blood clot[12].

The reason why diabetic patients showed higher risk than non-diabetic patients can be explained by increased thrombocytes adhesion and elevated serum cholesterol levels in diabetics[13]. Comparing the risk scores according to Blood Pressure, 38% (n=37) of Individuals with Normal Blood Pressure had High-risk when compared to individuals with Stage II 50% (n=25) of them had High-risk. Hypertension predisposes powerfully to all of the major peripheral artery disease. Risk ratios are larger for cardiac failure and stroke, but coronary disease is the most common and most lethal sequela of hypertension equaling in incidence all the other cardiovascular outcomes combined[14]. Diet plays an essential part in the etiology of hypercholesterolemia and hyperlipidemia which eventually lead to atherosclerosis[15]. Several factors such as high intake of saturated fats with diet, age, family history, hypertension, and lifestyle, as well as the high levels of cholesterol TC, TG, and LDL cholesterol play a huge part in causing CHDs[16]. Hypertriglyceridemia directly influences LDL, and HDL composition and metabolism, hypertriglyceridemia leads to atherogenic particles in the circulation explaining the higher risk of CVDs with higher levels of TG[17]. The role of each of TC, HDL, LDL, and TG was evident in the pathology of cardiovascular events studying the effect of Lipid profile on developing CHD according to FRS the results of the individuals of samples showed the significance of high levels of HDL in preventing CVD.

The major challenge in the maintenance of CVD, is to define not only the causes and their relationship between various risk factors and complications, but also to understand the effects of pharmaceutical agents that are beneficial in the management of cardiac complications. Multiple defects in the pathophysiology of CVD are mostly inaccurately understood, and therefore necessitate not isolating a

single drug target to the reversal of all or the majority of aspects of the disease. Successful public health efforts can have a substantial effect on the knowledge and behavior of a population.

V. Conclusion

Using Framingham Risk Score, we predicted the risk factor for developing CHD; BMI values, tobacco use, alcohol consumption, diabetes, HDL, LDL, and TG values showed a significant effect on predicting the possibility of developing CVD in our sample, showing the importance of monitoring of these risk factors in cardiovascular therapy. The study emphasizes on the clinical importance of monitoring risk factors in cardiovascular patients to predict the outcome and effectiveness of their medication therapy, and to emphasize the necessity to increase their knowledge about the importance of making changes in their lifestyles to lower the risk of having cardiovascular events.

References Références Referencias

1. Muhammad Adil Soofia, Mostafa Adel Youssef. Prediction of 10-year risk of hard coronary events among Saudi adults based on prevalence of heart disease risk factors. J Saudi Heart Assoc. 2015: 27(3): 152-159.
2. Catherine Kreatsoulas, Sonia S Anand. The impact of social determinants on cardiovascular disease. Can J Cardiol. 2010: 26(C): 8C-13C.
3. Greta Lee Splansky, Diane Corey,Qiong Yang, Larry D Atwood, Adrienne L Cupples, Emelia J Benjamin, Ralph B D Agostino, et al. The Third Generation Cohort of the National Heart, Lung, and Blood Institute's Framingham Heart Study: Design, Recruitment, and Initial Examination. American Journal of Epidemiology. 2007: 165(11): 1328-1335.
4. Donald M Lloyd-Jones, Peter WF Wilson, Martin G. Larson, Alexa Beiser, Eric P Leip, Ralph B. D. Agostino, et al. Framingham risk score and prediction of lifetime risk for coronary heart disease. The American Journal of Cardiology 2004: 94: 1: 20-4.
5. Tavia Gordon, William P Castelli, Marthana C Hjortland, William B Kannel, Thomas R Dawber. High density lipoprotein as a protective factor against coronary heart disease: The Framingham study. The American Journal of Medicine. 1977: 62(5): 707-714.
6. Dingfei Ge, Narayanan Srinivasan, Shankar M Krishnan. Cardiac arrhythmia classification using autoregressive modelling. BioMedical Engineering Online, 2002: 1(1): 1.
7. McCullough P. A, Philbin E. F, Spertus J. A, et al. Confirmation of a heart failure epidemic: findings from the Resource Utilization Among Congestive Heart Failure (REACH) study. J Am Coll Cardiol. 2002: 39(1): 60-69.
8. Eichler K, Puhan M. A, Steurer J, Bachmann L. M. Prediction of first coronary events with the Framingham score: a systematic review. Am Heart J 2007: 153: 722-31.
9. Pekka Jousilahti, Erkki Vartiainen, Jaakko Tuomilehto, Pekka Puska. Sex, Age, Cardiovascular Risk Factors, and Coronary Heart Disease. Circulation. 1999: 99: 1165-1172.
10. Isabel De Castro-Orós, Miguel Pocoví, Fernando Civeira. The genetic basis of familial hypercholesterolemia: inheritance, linkage, and mutations. Appl Clin Genet. 2010: 3: 53-64.
11. Collinson PO. Early diagnosis of myocardial infarction: why measure cardiac enzymes?. Journal of Clinical Pathology. 1998: 51(1): 2-4.
12. Camargo C. A Jr. Moderate alcohol consumption and stroke: the epidemiologic evidence. Stroke. 1989: 20: 1611-1626.
13. Kannel W. B, McGee D. L, Diabetes and Glucose Tolerance as Risk Factors for Cardiovascular Disease: The Framingham Study. Diabetes Care. 1979: 2(2): 120-126.
14. William B Kannel. Blood Pressure as a Cardiovascular Risk Factor: Prevention and Treatment. JAMA. 1996: 275(20): 1571-1576.0
15. Balaraman Ganesan, Rangasamy Anandan, Rangasamy Rajesh. Protective effect of Betaine on changes in lipid profile, Lipoproteins and fatty acid composition in experimentally induced myocardial infarction in wistar rats. International Journal of Biomedical and Pharmaceutical Sciences. 2008: 2(1): 65-69.
16. Berliner J. A, Watson A. D. A role for oxidized phospholipids in atherosclerosis. N Engl Med 2005: 353(1): 9-11.
17. Michael Miller, Neil J Stone, Christie Ballantyne, Vera Bittner, Michael H Criqui, et al. Triglycerides and Cardiovascular Disease A Scientific Statement From the American Heart Association. Circulation. 2011: 123: 2292-2333.

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El Impacto De La Terapia De Sustituciónrenalen La Calidad De Vida De Los Pacientes

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Abstract- *Introduction:* Chronic Kidney Disease that requires replacement therapy for renal function is one of the conditions that have the greatest impact on the quality of life of people who suffer from it.

Objective: To know the quality of life related to the health of patients with Chronic Kidney Disease in treatment with Peritoneal Dialysis and Hemodialysis, in the General Hospital of Zone No. 3, IMSS, Tuxtepec, Oaxaca, in the period between June and July of 2018.

Methodology: It is based on a cross-sectional descriptive comparative design. The KDQOL-SF (Kidney and Disease Quality of Life Short Form) instrument was applied, specifically for patients with end-stage renal disease who are on dialysis therapy.

Results: The results ruled that the quality of life of patients in general is regular. Of the dimensions most affected are; work situation, burden of disease, social relations and cognitive function. Being the first study carried out in the population, therefore, it will be of great interest to the Nursing staff, since this indicator helps to humanize and personalize the care.

Keywords: *quality of life, peritoneal dialysis, hemodialysis, chronic kidney disease.*

GJMR-F Classification: *NLMC Code: QZ 140*

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El Impacto De La Terapia De Sustitución Renal En La Calidad De Vida De Los Pacientes

Claudia Toribio-Ferrer [α] & Monserrat Guerrero-Leyva [σ]

Resumen- Introducción: La Enfermedad Renal Crónica que amerita terapia de sustitución de la función renal, es uno de los padecimientos que tienen mayor impacto en la calidad de vida de las personas que la padecen.

Objetivo: Conocer la calidad de vida relacionada con la salud de los pacientes con Enfermedad Renal Crónica en tratamiento con Diálisis Peritoneal y Hemodiálisis, en el Hospital General de Zona No. 3, IMSS, Tuxtepec, Oaxaca, en el periodo comprendido entre junio y julio de 2018.

Metodología: Está sustentada en un diseño descriptivo comparativo de corte transversal. Se aplicó el instrumento de KDQOL-SF (Kidney and Disease Quality of Life Short Form), específico para pacientes con enfermedad renal en etapa terminal que se encuentre en terapia dialítica.

Resultados: Los resultados dictaminaron que la calidad de vida de los pacientes en general, es regular. De las dimensiones más afectadas son; situación laboral, carga de la enfermedad, relaciones sociales y función cognitiva. Siendo el primer estudio que se realiza en la población, por lo cual, será de gran interés para el personal de Enfermería, ya que este indicador ayuda a humanizar y personalizar los cuidados.

Palabras Clave: calidad de vida, diálisis peritoneal, hemodiálisis, enfermedad renal crónica.

Summary- Introduction: Chronic Kidney Disease that requires replacement therapy for renal function is one of the conditions that have the greatest impact on the quality of life of people who suffer from it.

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Keywords: quality of life, peritoneal dialysis, hemodialysis, chronic kidney disease.

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I. Introducción

La Enfermedad Renal Crónica (ERC) es la presencia de daño renal con una duración igual o mayor a tres meses, caracterizado por anormalidades estructurales o funcionales con o sin descenso de la tasa de filtración glomerular (TFG) a menos de 60ml/min/1.73m2[(1)], lo que conlleva clínicamente a la pérdida irreversible de la función renal, en una magnitud suficiente como para que el paciente dependa, de forma permanente, del tratamiento sustitutivo renal; Diálisis Peritoneal y Hemodiálisis[(2)].

Siendo esta patología, la quinta causa de muerte más importante entre la población mexicana[(3)], en razón de que, está estrechamente relacionada con la Diabetes Mellitus y la Hipertensión Arterial, siendo estos sus principales factores de riesgos y ambos con altos índices de prevalencia en México. Por lo que es considerada, como un importante problema de salud pública por su elevada incidencia, prevalencia, morbimortalidad y coste asistencial[(4)].

La ERC que amerita tratamiento sustitutivo de la función renal, es una de las enfermedades capaces de generar un mayor deterioro en la calidad de vida de los pacientes; esto es resultado de la necesidad de cambios en la dieta, toma de medicamentos, restricción de líquidos, modificación del estilo de vida, adaptación al pronóstico, dependencia al tratamiento sustitutivo y del impacto que éste tiene en la vitalidad[(5)].

La Calidad De Vida Relacionada Con La Salud (CVRS) es conceptualizada como "la evaluación que realiza el individuo respecto a su salud y su grado de funcionamiento en la realización de las actividades cotidianas, lo cual incluye; la función física, psicológica y social, la percepción general de la salud, la movilidad y el bienestar emocional"[(6)].

Diversos estudios, que han evaluado la calidad de vida relacionada con la salud evidencian que la ERC y el tratamiento sustitutivo de la función renal, interfieren en la vida de los pacientes, puesto que, reduce o limita la actividad social, lo que afecta la salud psicológica. Agregando a que esta patología, se asocia con dolor crónico, depresión, limitación de la capacidad funcional, incapacidad para mantener el empleo, disfunción sexual[(5)], falta de motivación, baja autoestima, emocionalmente inestable con tendencia a crisis y cambios de comportamiento[(7)]. Otros síntomas como;

distrés psicosocial, insomnio, ansiedad, debilidad o falta de energía y dificultad para la movilización[8].

A pesar de que, la terapia dialítica tiene un efecto terapéutico sobre la enfermedad renal terminal, los pacientes encuentran múltiples factores de estrés físico, psíquico y social que no son controlables, asociado a ciertos estados patológicos como: hipertensión arterial, diabetes mellitus, hiporexia, anemia y trastornos dermatológicos[5]. Ocasionando así, un desequilibrio en su vida habitual y afectando la salud del individuo, por consiguiente, se ve afectado su calidad de vida.

Para el personal de Enfermería que esté a cargo del paciente con dicho tratamiento, la investigación será de gran interés, pues le permitirá conocer al ser humano desde una perspectiva holística, tomando en cuenta sus características y la situación de vida por la que atraviesa. Por todo ello, surge una nueva necesidad de conocer la calidad de vida relacionada con la salud de los pacientes con Enfermedad Renal Crónica en tratamiento con Diálisis Peritoneal y Hemodiálisis, al mismo tiempo comparar la calidad de vida que tienen los pacientes en relación a los dos tipos de terapia dialítica que funciona en el IMSS No. 3, de Tuxtepec, Oaxaca. Agregando a que no hay evidencia de la existencia de investigaciones relacionados con el tema, en dicha institución.

Con el conocimiento generado se podrá ejecutar intervenciones, de acuerdo a las áreas o dimensiones que se ven más afectadas por la Diálisis Peritoneal y Hemodiálisis. El conocer la calidad de vida desde la perspectiva disciplinar de enfermería, contribuye en el diseño de estrategias y modelos de cuidado para los pacientes, que permitirá sobrellevar su enfermedad, aumentar la sobrevida, y sobre todo que mejoren la calidad de vida de los pacientes contribuyendo a evitar complicaciones y secuelas que conlleva a grandes limitaciones progresivas e irreversibles.

II. Metodología

Esta investigación se ha realizado a través de un estudio descriptivo comparativo de corte transversal. La población de estudio está conformada por pacientes con enfermedad renal crónica terminal con terapia de diálisis peritoneal y Hemodiálisis del Hospital General de Zona. 3, IMSS, Tuxtepec, Oaxaca. En el periodo comprendido del 15 de junio al 20 de julio de 2018.

Se realizó un muestreo no probabilístico estratégico, utilizando unos criterios subjetivos para la selección de los pacientes que formaron parte de las muestras a estudio. De los 90 pacientes que recibían tratamiento en la institución de salud en el momento de la recogida de datos, se excluyeron 56 por no cumplir los criterios de inclusión. De modo que, la muestra de 34 pacientes, quedó de la siguiente manera; 26 son de diálisis peritoneal y 8 en sesión de hemodiálisis intramuros, siendo la totalidad de los pacientes que recibían tratamiento en el momento de la recogida de datos.

Los sujetos de investigación fueron individuos con diagnóstico médico de enfermedad renal crónica en etapa terminal, con más de tres meses en el programa de terapia dialítica, neurológicamente estable, pacientes de ambos sexos inscritos al programa de Diálisis Peritoneal y Hemodiálisis y participar voluntariamente previo a la firma del consentimiento informado.

La técnica de recogida de información fue la aplicación del cuestionario The Kidney and Disease Quality of Life Short Form (KDQOL-SF), instrumento de medición auto aplicable que incluye 43 ítems relacionados con la enfermedad renal distribuidos entre 11 dimensiones para evaluar síntomas asociados a la enfermedad, efectos de la enfermedad renal en la vida diaria, carga de la enfermedad renal, estado laboral, función cognitiva, calidad de la interacción social, función sexual y sueño. Tres escalas adicionales: soporte social, satisfacción del paciente y estímulo al personal de diálisis[5].

Asignando un puntaje de 0-100 en las diferentes dimensiones del cuestionario. De acuerdo con el punto de corte, se calificará como mala, regular, buena, muy buena y excelente la calidad de vida relacionada con la salud. Dicho inventario ha sido ampliamente validado en realidades latinoamericanas, tiene una confiabilidad Alfa de Cronbach = 0.87 para la escala total[9].

El análisis estadístico se realizó usando el paquete estadístico informático Statistical Package for Social Sciences (SPSS) v22.0 para Windows. El procesamiento de datos se hizo mediante la elaboración de una base de datos electrónica, utilizando el programa Microsoft Office Excel versión 2016. Para posteriormente, plasmarla en cuadros y gráficas con los resultados basados en el objetivo general y específico para determinar la calidad de vida relacionada con la salud de los pacientes en diálisis peritoneal y hemodiálisis.

III. Consideraciones Éticas

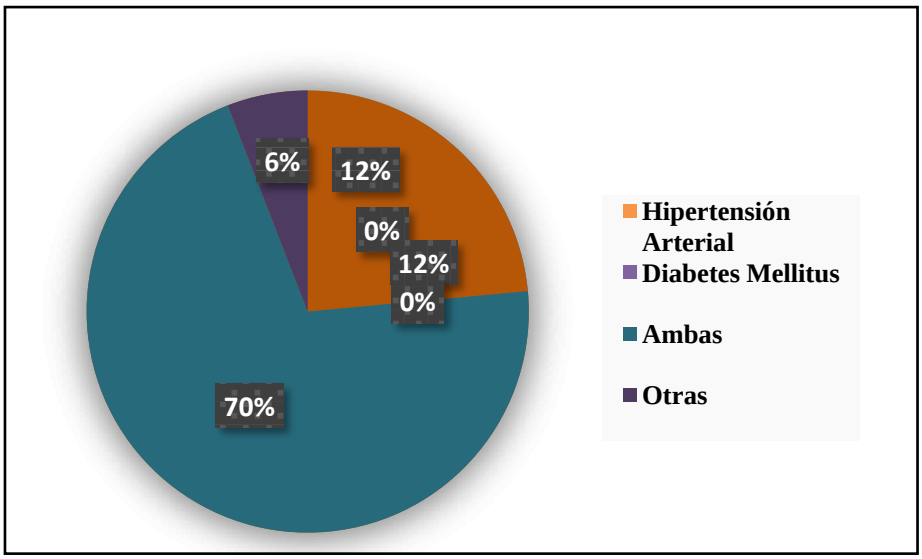
Para poder realizar el estudio, previamente se solicitó autorización a la dirección de la institución de salud. Durante el desarrollo de la investigación se observaron los principios éticos y los principios de Helsinki concernientes a la investigación en seres humanos[10]. Y, con el consentimiento informado se garantizará el anonimato y la confidencialidad de los pacientes participantes en el estudio.

IV. Resultados

Durante el periodo analizado, 90 pacientes estaban inscritos al programa de sustitución renal, de los cuales 8 eran de hemodiálisis y el resto de diálisis peritoneal; 11 pacientes negaron a contestar el

cuestionario, 12 no tenían más de tres meses en tratamiento, 13 se encontraban en mal estado físico y cognitivo y 12 pacientes no se pudieron contactar.

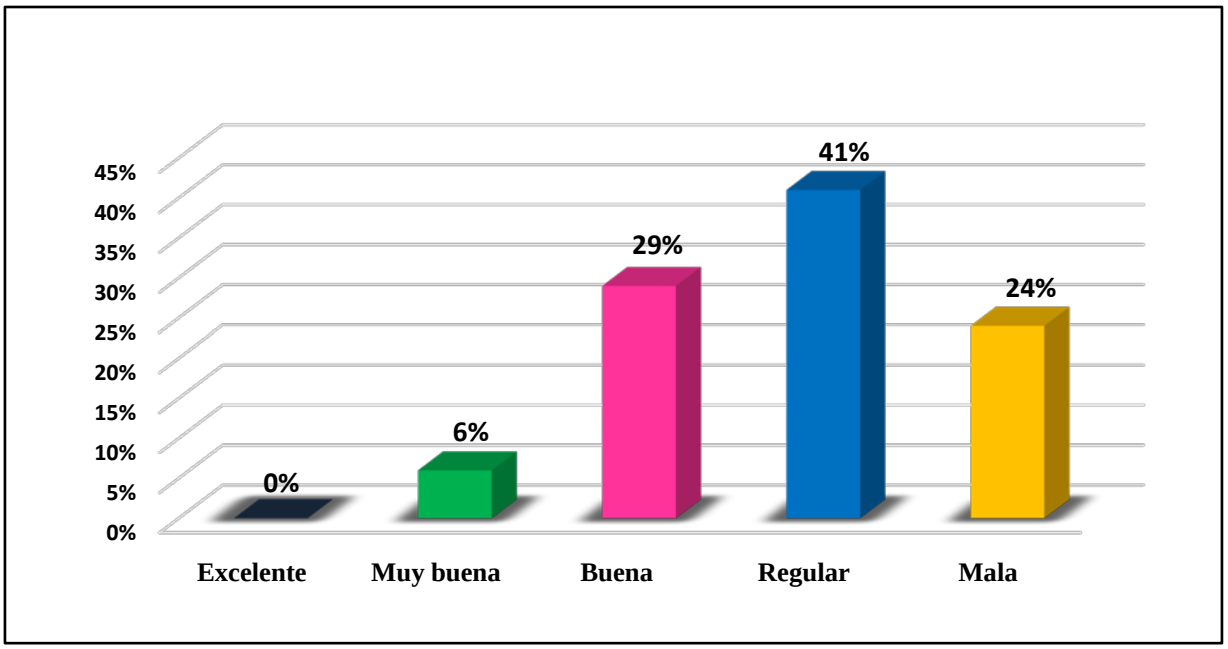
De ese modo, la muestra del estudio estuvo formada por 34 pacientes, de los cuales, el 62 % fueron del sexo masculino y 38% femenino. La edad promedio de los pacientes fue de 45.7 años, tomando en cuenta la edad mínima de 33 años y la máxima de 67 años. En relación a las comorbilidades predominantes en los pacientes fue la Diabetes Mellitus y la Hipertensión Arterial, siendo estas enfermedades crónicas degenerativas la causa principal en desarrollar la Enfermedad Renal Crónica (Gráfica 1).



Fuente: Propia con los datos obtenidos del cuestionario (KDQOL-SFTM), aplicado en 2018

Gráfica 1: Comorbilidades Predominantes

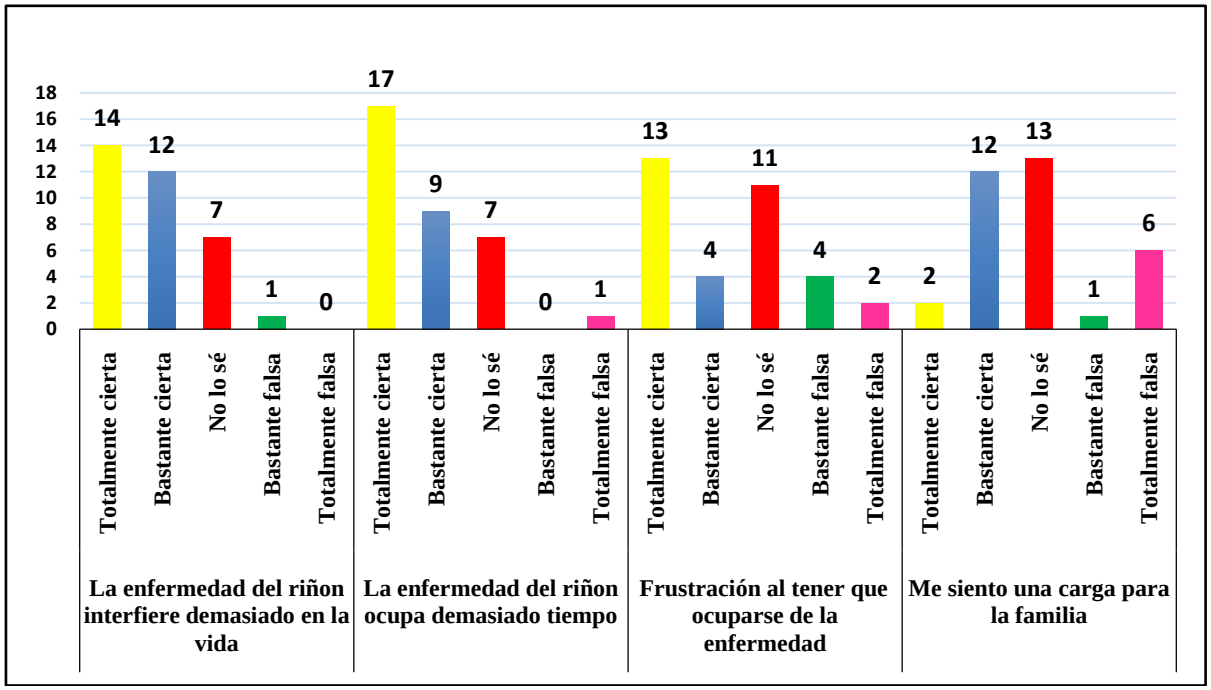
Los resultados en cuanto a la calidad de vida global del total de los pacientes frente a su estado general de salud fue regular (41%), seguida de 29% que evidencian buena calidad de vida y un 24% de los pacientes presentan una mala calidad de vida (gráfica 2). De modo que, en los pacientes con terapia de sustitución renal (diálisis peritoneal y hemodiálisis) poco a poco se van deteriorando su calidad de vida, inclusive hasta de su cuidador principal, al ser sucesos vitales altamente estresantes.



Fuente: Propia con los datos obtenidos del cuestionario (KDQOL-SFTM), aplicado en 2018

Gráfica 2: Estado General De Salud

Las percepciones sobre el impacto de la enfermedad renal crónica en su vivencia, son las siguientes: la mayoría coincide en que efectivamente la terapia de diálisis y de hemodiálisis interfieren demasiado en su vida, y que ocupa demasiado tiempo de sus actividades cotidianas. Así mismo, refieren sentirse frustrados al tener que ocuparse de su tratamiento de sustitución renal. Por otra parte, la mayoría desconoce si son una carga para la familia, ya que, solamente 2 de ellos lo afirman (gráfica 3).



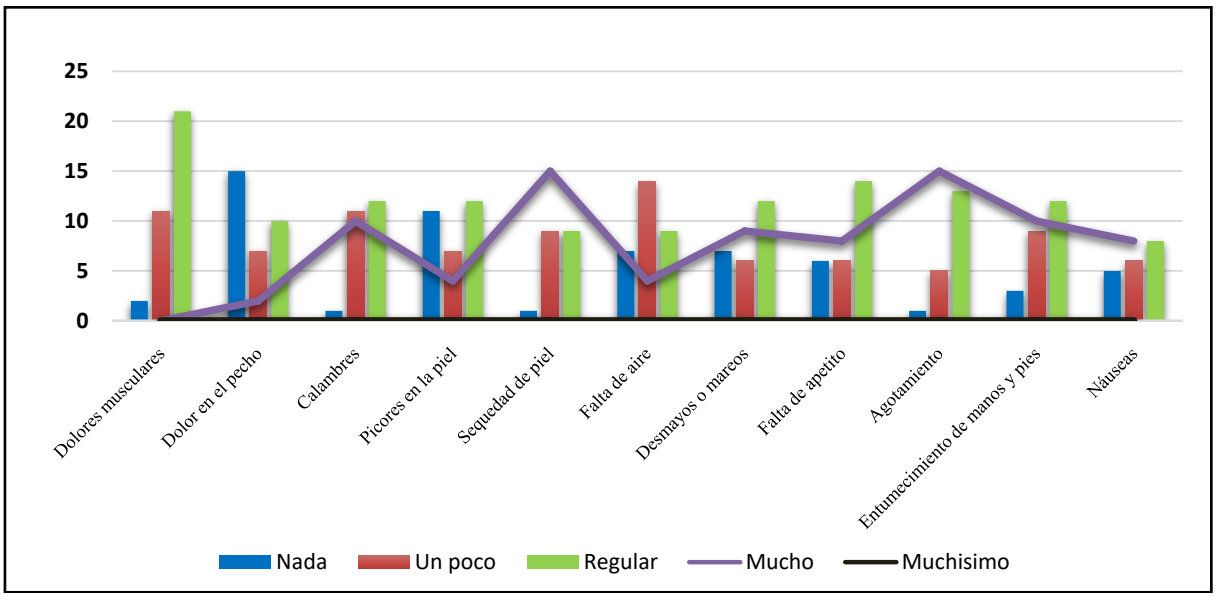
Fuente: Propia con los datos obtenidos del cuestionario (KDQOL-SFTM), aplicado en 2018

Gráfica 3: Percepciones Sobre La Enfermedad Renal Crónica En Su Vivencia

De la misma línea de idea, se descubrió que los pacientes se encuentran resignados ante la enfermedad renal, por tener que vivir prácticamente con el tratamiento de diálisis Peritoneal o en su caso hemodiálisis, así mismo, porque el tratamiento ocupa la mayor parte de su tiempo, al tener que llevar a cabo sus recambios de soluciones de diálisis o acudir a sus sesiones de hemodiálisis 2 o 3 veces a la semana.

Aunado a eso, consideran que la terapia de sustitución renal, obstaculiza demasiado su vida, de tal manera, no poder ejecutar las actividades que anteriormente acostumbraban a realizar. Deteriorando así, su calidad de vida tanto en el ámbito; social, económico, y psicológico, inclusive en lo familiar, debido a que, en ocasiones hay una desintegración familiar después de recibir la noticia que el paciente necesitará de cuidados especiales y sobre todo de un cuidador principal, convirtiéndose así, en una persona dependiente.[7]

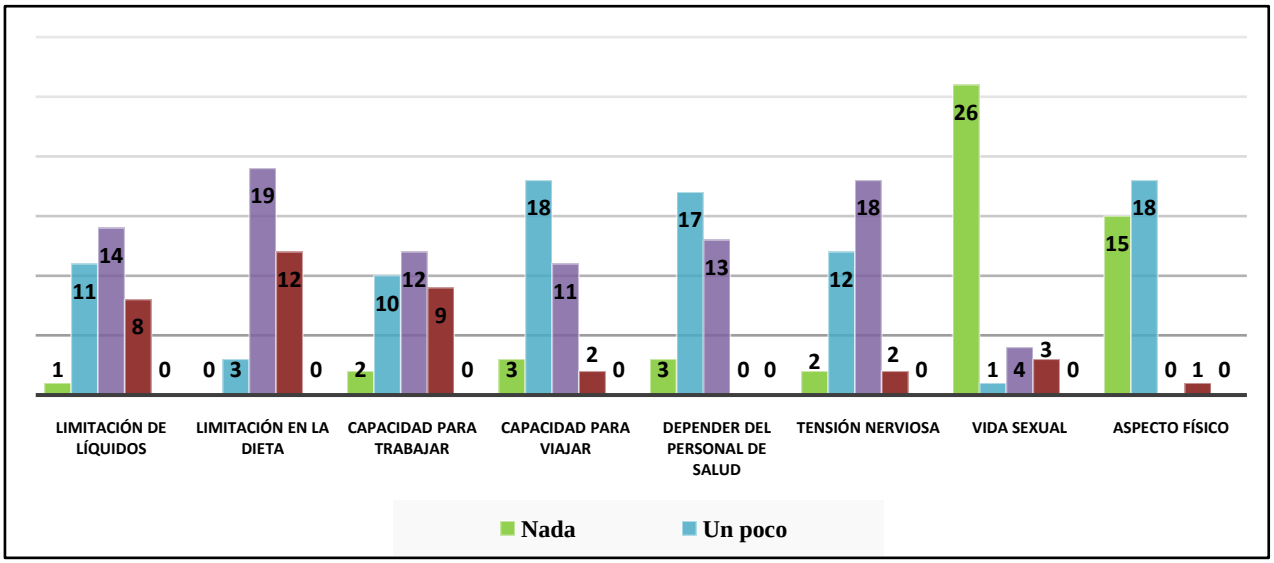
El porcentaje de las principales manifestaciones clínicas que presentan los pacientes renales se puede apreciar en la gráfica 4. Se observaque, la mayor parte de ellos no presentan dolor precordial, mientras que, síntomas como dolores musculares, calambres, picores enla piel, desmayos, falta de apetito, entumecimiento de manos y pies, respondieron que regularmente les da, esas manifestaciones clínicas. Sin embargo, la sequedad de la piel y agotamiento son síntomas muy frecuentes por las que tienen que tolerardía a día.



Fuente: Propia con los datos obtenidos del cuestionario (KDQOL-SFTM), aplicado en 2018

Gráfica 4: Manifestaciones Clinicas

Con respecto alos principales efectos de la terapia dialítica que molestan en su vida diaria a los pacientesson; consumir pocos líquidos, tener una dieta más estricta, incapacidad para trabajar y preocupaciones causadas por la diálisis y hemodiálisis les afecta de manera regular. Sin embargo, su capacidad para viajar, el aspecto físico y depender del personal de salud sólo le afecta un poco en su vida cotidiana; en cuanto a su vida sexual, ellos refieren que no les afecta en nada (gráfica 5).



Fuente: Propia con los datos obtenidos del cuestionario (KDQOL-SFTM), aplicado en 2018

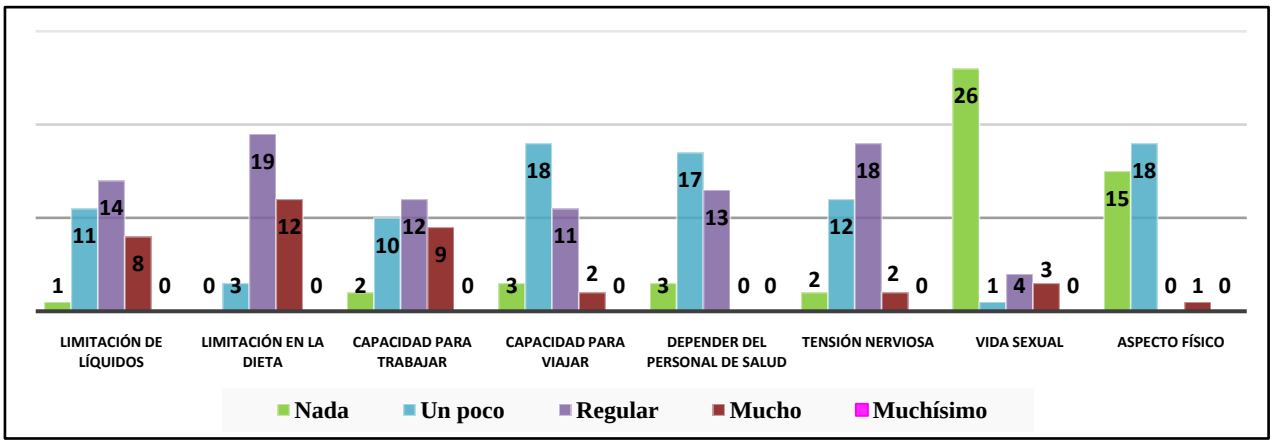
Gráfica 5: Efectos De La Terapia Dialítica

En el análisis de las dimensiones de la calidad de vida relacionada con la salud; Se observa que a mayor promedio obtenido en cada dimensión del cuestionario KDQOL-SF, representa el porcentaje que mayor influencia tiene en la calidad de vida percibida por el paciente hacia la terapia dialítica. En la actitud del personal de salud, el 44.1% representa un excelente trato hacia el paciente, seguida de función sexual y satisfacción del paciente con un 41.1% respectivamente. Dada la condición del paciente renal, los promedios más bajos comprenden en la dimensión de situación laboral y relaciones sociales, en el resto de las dimensiones no se observan diferencias estadísticamente significativas, tal como se muestra en la tabla 1.

Tabla 1: Dimensiones de la calidad de vida relacionada con la salud según el inventario (KDQOL-SF™)

Dimensiones	Excelente	Muy Buena	Buena	Regular	Mala	Total
Signos y síntomas	11 (32.3%)	5 (14.7%)	14 (41.1%)	2 (5.8%)	2 (5.8%)	34=99.7%
Efectos de la enfermedad	5 (14.7%)	10 (29.4%)	13 (38.2%)	4 (11.7%)	2 (5.8%)	34=99.8%
Carga de la enfermedad	3 (8.8%)	7 (20.5%)	6 (17.6%)	5 (14.7%)	13 (38%)	34=99.8%
Situación laboral	2 (5.8%)	1 (2.9%)	2 (5.8%)	7 (20.5%)	22 (64.7%)	34=99.7%
Función cognitiva	2 (5.8%)	5 (14.7%)	3 (8.8%)	11 (32.3%)	13 (38.2%)	34=99.8%
Relaciones sociales	7 (20.5%)	6 (17.6%)	4 (11.7%)	3 (8.8%)	14 (41.1%)	34=99.7%
Función sexual	14 (41.1%)	8 (23.5%)	6 (17.6%)	4 (11.7%)	2 (5.8%)	34=99.7%
Sueño	3 (8.8%)	7 (20.5%)	10 (29.4%)	10 (29.4%)	4 (11.7%)	34=99.8%
Apoyo social	8 (23.5%)	8 (23.5%)	9 (26.4%)	4 (11.7%)	5 (14.7%)	34=99.8%
Actitud del personal de salud	15 (44.1%)	14 (41.1%)	4 (11.7%)	1 (2.9%)	0 (0%)	34=99.8%
Satisfacción del paciente	14 (41.1%)	12 (35.2%)	8 (23.5%)	0 (0%)	0 (0%)	34=99.8%

La diferencia entre la calidad de vida relacionada con la salud en los pacientes inscritos en el programa de Diálisis Peritoneal y Hemodiálisis, al interpretar los resultados, se encontró que los encuestados con tratamiento de diálisis peritoneal tienen entre la peor y perfecta salud posible, a diferencia de los pacientes de hemodiálisis que, por su parte, 50% de ellos presentan mejor salud posible, por ende, tienen mejor calidad de vida (gráfica 6).



Fuente: Propia con los datos obtenidos del cuestionario (KDQOL-SFTM), aplicado en 2018

Gráfica 6: Efectos De La Terapia Dialítica

V. Discusión

Hubo una participación efectiva del 37% de los pacientes del programa, lo cual permite extrapolar los resultados a la población de referencia y compararlos con otros estudios.

De las dimensiones evaluadas en el presente estudio mediante el cuestionario KDQOL-SF, los pacientes sometidos a diálisis peritoneal y hemodiálisis presentan un estado de salud "regular", es decir, tienen una disminución en la calidad de vida relacionada con la salud. Mismo dato, fue reportado por Quispe[11]. Por otro lado, los pacientes de hemodiálisis presentan mejor calidad de vida, a diferencia de los pacientes de diálisis peritoneal, que tienen entre peor y perfecta salud posible. Estos hallazgos se contraponen con los resultados de López, et al.[12], ya que, reportan que la diálisis peritoneal genera mejor puntaje en calidad de vida en relación con la hemodiálisis.

En la percepción sobre el impacto que tiene la enfermedad renal crónica en su vivencia, la mayoría de los pacientes desconoce si son una carga para su familia, tal vez, no se atreven a aceptar la realidad por miedo a decir la verdad. Por otra parte, López, et al., reporta en sus resultados, que los pacientes consideran que si son una carga para la familia. Dado a lo anterior, en la diálisis peritoneal se necesita de otra persona para realizar el recambio de soluciones de cada 2 o 6 horas, de acuerdo a la indicación médica. En hemodiálisis solo implica acudir a la sesión 2 o 3 veces a la semana. Por

tanto, los pacientes de hemodiálisis son más independientes que los pacientes de diálisis peritoneal.

En 2012, Reyes, et al., demuestran que los síntomas más frecuentes por los pacientes renales son: sequedad de la piel, calambres, prurito y nausea[5]. Mismos obtenidos en este estudio, agregando el agotamiento y dolores musculares, que también está presente en la vida de ellos.

El hecho de consumir pocos líquidos y tener una dieta más estricta, altera su calidad de vida, puesto a que si son diabéticos o hipertensos son obligados a consumir una dieta baja en sodio y en carbohidratos. Inclusive la dieta para nefropatía, para ellos son simples. Dicha información es omitida en la mayoría de las investigaciones.

Respecto a las 11 dimensiones del cuestionario KDQOL-SF; la más afectada es la situación laboral, carga de la enfermedad, relaciones sociales y función cognitiva; mientras que, las dimensiones menos afectadas son; signos y síntomas de la ERC, función sexual, actitud del personal de salud y satisfacción del paciente. Según, lo hallado por López y col., los pacientes de diálisis peritoneal y hemodiálisis tienen ingresos bajos, resultado que coincide con lo expuesto anteriormente, debido al agotamiento físico y sobre todo a la falta de tiempo, es complicado encontrar un trabajo estable. En la dimensión de relaciones sociales, Quispe, en su estudio obtuvo como resultado regular calidad de vida, dicho resultado es diferente a lo encontrado a este estudio.

VI. Conclusión

Evaluar la calidad de vida relacionada con la salud en las instituciones que atienden pacientes con terapia de sustitución renal; Diálisis Peritoneal y Hemodiálisis debe ser un proceso periódico, realizado tanto por el personal de enfermería como por cualquier miembro del equipo de salud. Porque este indicador ayuda a humanizar y personalizar los cuidados, constituye una información importante para el seguimiento de la terapia dialítica, además de que muestra una visión del impacto de la terapia en los pacientes y permite analizar algunos aspectos propios del desarrollo del programa institucional, orientados al mejoramiento de la calidad del servicio prestado.

Los resultados dictaminaron que la calidad de vida de los pacientes encuestados es, en general, regular. Las dimensiones que se ven afectadas principalmente son; situación laboral y carga de la enfermedad, mientras las menos afectadas son; función sexual, actitud del personal de salud y satisfacción del paciente.

La atención del paciente en tratamiento de diálisis peritoneal y hemodiálisis, amerita una mejor comprensión de las dimensiones que afectan su calidad de vida, mediante otros abordajes de investigación, a nivel de estudios de intervención con los cuidadores primarios, familiares y con el personal que provee atención a los pacientes. Lo anterior, en consideración al incremento de la población con enfermedad renal crónica.

La forma en cómo se puede intervenir desde el enfoque de enfermería, es a través de diseño de estrategias y modelos de cuidados para los pacientes,para optimizar así, las intervenciones de cuidado que incidan en aspectos de carácter físico, social, psicológico y biológico del paciente.

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Conflicto De Intereses

Los autores certifican que no tienen conflicto de intereses con ninguna.

References Références Referencias

1. Lorenzo V. Enfermedad Renal Crónica. Revista nefrología, 2017; 1-13. [consultado el 28 de mayo de 2018]. Disponible en: http://revistanefrologia.com/es-monografias-nefrologia-dia-articulo-enfermedad-renal-cronica-136.
2. Hernández A, Castañeda A, Burciaga C, Garvalena A. J. Calidad de vida en pacientes con tratamiento sustitutivo renal: diálisis peritoneal continua ambulatoria y hemodiálisis. Revista Iberoamericana de Educación e Investigación en Enfermería. 2014; 4(1): 67-74. [consultado el 26 de mayo de 2018]. Disponible enhttps://www.enfermeria21.com/revistas/aladefe/articulo/108/calidad-de-vida-en-pacientes-con-tratamiento-sustitutivo-renal-dialisis-peritoneal-continua-ambulatoria-y-hemodialisis/
3. Renalis. La Insuficiencia Renal en México: Un grave problema de Salud Pública. [Internet] México: Renalis [consultado el 28mayo 2018]. Disponible en: http://www.renalis.com.mx/la-insuficiencia-renal-en-mexico/
4. Caro C, Garrido L, Sanz, M. Influencia de la consulta de enfermedad renal crónica avanzada en la elección de modalidad de terapia renal sustitutiva. Enfermería Nefrológica. 2016; 19(4): 318-329. [consultado el 29 de mayo de 2018]. Disponible en http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S2254-28842016000400003.
5. Reyes F, Canseco J, Vásquez S, Reyes V. Evaluación de la calidad de vida relacionada con la

salud en pacientes con enfermedad renal crónica en terapia de reemplazo mediante hemodiálisis en el Hospital Regional de Alta Especialidad de Oaxaca. Evidencia Médica e Investigación en Salud. 2012; 5(3): 89-94. [consultado el 10 de junio de 2018]. Disponible en: http://www.medigraphic.com/pdfs/evidencia/eo-2012/eo123d.pdf.

6. Perales C. M, Duschek S, Reyes del paso G. A. Calidad de vida relacionada con la salud en la enfermedad renal crónica: relevancia predictiva del estado de ánimo y la sintomatología somática. Revista de la Sociedad Española de Nefrología. 2016; 36(3): 275-282. [consultado el 30 de mayo de 2018]. Disponible en: http://www.revistanefrologia.com/es-publicacion-nefrologia-articulo-calidad-vida-relacionada-con-salud-enfermedad-renal-cronica-relevancia-predictiva-S0211699516000424.
7. Muñoz M. N, Martínez S, Izasa D. C. Calidad de vida relacionada con la salud en pacientes con diálisis peritoneal continua ambulatoria. Eje cafetero colombiano 2015. Revenf. 2017; 32(1). [consultado el 12 de junio de 2018]. Disponible en: http://www.scielo.sa.cr/pdf/enfermeria/n32/1409-4568-enfermeria-32-00052.pdf.
8. Sckell C, Villalba R. Calidad de vida de pacientes con insuficiencia renal en diálisis. Tendencias en Medicina. 2017; 7(12): 99-104. [consultado el 10 de junio de 2018]. Disponible en: http://tendenciasenmedicina.com/Imagenes/imagenes12p/art_17.pdf.
9. Gómez R, Matos G. N, Ore K. C. Variables asociadas a la calidad de vida de pacientes con enfermedad renal crónica atendidos en el hospital regional de Loreto 2012. [Tesis de licenciatura en internet] [Amazona]: Universidad Nacional de a Amazona Peruana; 2013 [consultado el 20 de junio de 2018]. Disponible en: http://repositorio.unapiquitos.edu.pe/bitstream/handle/UNAP/2210/T-616.612-G68.pdf?sequence=1.
10. Asociación Médica Mundial. Declaración de Helsinki de la AMM-principios éticos para las investigaciones médicas en seres humanos. [Internet] Francia; AMM; 2017 [citado 21 junio2018]. Disponible en: http://www.wma.net/es/policies-post/declaracion-de-helsinki-de-la-amm-principios-eticos-para-las-investigaciones-medicas-en-seres-humanos/
11. Quispe MM. Calidad de vida de pacientes con insuficiencia renal crónica con terapia de diálisis peritoneal ambulatoria continua, asegurados en ESSALUD PUNO-2016. 2017.[Tesis de licenciatura] [Perú] Universidad Nacional del Altiplano; 2016. [consultado el 12 de junio de 2018]. Disponible en: http://repositorio.unap.edu.pe/bitstream/handle/UNAP/4719/Quispe_Peralta_Maritza_Maribe.pdf?sequence=1&isAllowed=y.
12. López LR, Baca A, Guzmán P, Acuña A, Ramírez R, López D, et al. Calidad de vida en hemodiálisis y diálisis peritoneal tras cuatro años de tratamiento. MedIntMéx. 2017; 33(2): 177-184. [consultado el 15 de junio de 2018]. Disponible en http://www.medigraphic.com/pdfs/medintmex/mim-2017/mim172e.pdf.

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A Rare Case of Solitary Fibrous Tumor of Prostate - A Case Report

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Abstract- Solitary fibrous tumor (SFT), initially thought to be limited to the pleura can now be seen in numerous other sites. Prostatic solitary fibrous tumor is exceedingly rare and presents with nonspecific symptoms. We report a case of solitary fibrous tumor in a 43-year-old male patient who presented with obstructive urinary symptoms. A Trans rectal ultrasonography guided prostate biopsy was done. Microscopic examination revealed a lesion composed of spindle cell arranged in storiform pattern admixed with bands of collagen and haemangiopericytomatous vessels. Immunohistochemically the spindle cells stained positive for CD34 and STAT6 thus confirming the diagnosis of SFT. The patient underwent complete resection and the recovery was uneventful. Currently complete excision seems to be the most important prognostic factor. We also review the histologic mimics of SFT and the utility of STAT6 in aiding the diagnosis of SFT.

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A Rare Case of Solitary Fibrous Tumor of Prostate - A Case Report

Dr. B. Shabarinath [α], Dr. Rahul Devraj [σ], Dr. Megha S Uppin [ρ] & Dr. Nishika Madireddy [ω]

Abstract- Solitary fibrous tumor (SFT), initially thought to be limited to the pleura can now be seen in numerous other sites. Prostatic solitary fibrous tumor is exceedingly rare and presents with nonspecific symptoms. We report a case of solitary fibrous tumor in a 43-year-old male patient who presented with obstructive urinary symptoms. A Trans rectal ultrasonography guided prostate biopsy was done. Microscopic examination revealed a lesion composed of spindle cell arranged in storiform pattern admixed with bands of collagen and haemangiopericytomatous vessels. Immunohistochemically the spindle cells stained positive for CD34 and STAT6 thus confirming the diagnosis of SFT. The patient underwent complete resection and the recovery was uneventful. Currently complete excision seems to be the most important prognostic factor. We also review the histologic mimics of SFT and the utility of STAT6 in aiding the diagnosis of SFT.

I. Introduction

Solitary fibrous tumor (SFT), an uncommon spindle cell tumor was first described in 1931 by Klemperer and Rabin.[1,2] It accounts for less than 2% of all soft tissue neoplasms and was erroneously thought to be of mesothelial or submesothelial origin.[2-5] However, advances in understanding the histogenesis and immunohistochemistry in the past few decades have shown that they arise from CD34 positive dendritic cells which are ubiquitously distributed throughout the body.[2-5] Previously thought to be limited to the pleural cavity and other mesothelial lined cavities it has now been established that SFTs can involve a variety of extrapleural sites like the breast, kidney, meninges, liver, bladder and seminal vesicle.[5,-7] However, SFT of the prostate is exceptionally rare and only a handful of cases have been reported in the literature. We report a case of solitary fibrous tumor of the prostate in a 43-year-old male patient presenting with obstructive lower urinary tract symptoms.

II. Case Review

A 43-year male patient presented to the Urology out patient with obstructive urinary symptoms such as a narrow stream, intermittency, straining for micturition with an International prostatic symptom score (IPSS) score of 19. His past history was insignificant and he had no other co morbidities. Ultrasonography revealed an enlarged prostate measuring 150 cc with the left lobe showing a heterogeneous echotexture and increased vascularity. The serum PSA levels were within normal limits (0.8 ng / ml) and a CECT revealed a heterogeneously enhancing mass lesion arising from the left lobe of prostate displacing the urethra to the right with loss of fat plane between the prostate and rectum. (Figure 1).

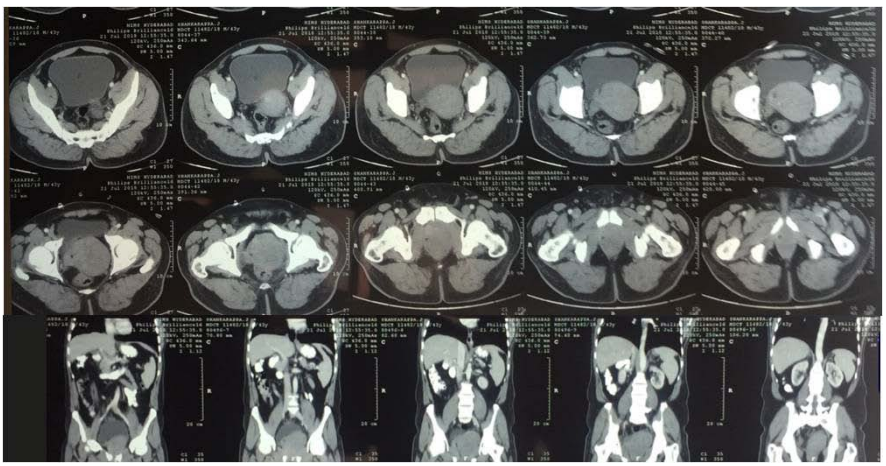

Fig. 1: CECT showing heterogeneously enhancing mass lesion arising from the left lobe of prostate displacing the urethra to the right with loss of fat plane between the prostate and rectum

Trans-rectal ultrasonography guided biopsy from prostate was done showing features consistent with mesenchymal tumor. After complete surgical profile patient was posted for open prostatectomy.

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Intra-operatively left lobe of prostate gland was enlarged, complete gland removal was done and specimen was sent for histopathological examination.

Gross examination revealed complete enlargement of the prostate measuring 20 x 11 x 3.5 cm with nodular external surface. The cut surface had whitish firm appearance without any areas of necrosis or haemorrhage. (Figure 2) Microscopic examination revealed a lesion composed of spindle cells arranged in a storiform pattern with intervening bundles of collagen. Numerous staghorn vessels were observed within the lesion. No necrosis, atypia or increased mitotic activity was noticed. Immunohistochemically the spindle cells were positive for STAT6 and CD34. (Figure 3).

Fig. 2: Gross prostatectomy specimen showing enlarged prostate with nodular appearance

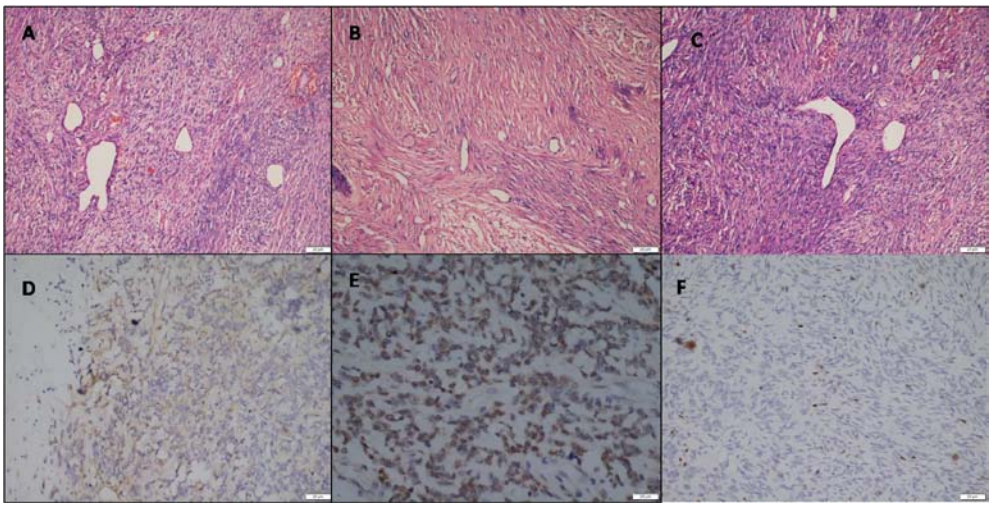

Fig. 3 : A, B, C the microscopic sections showing spindle cells arranged in patternless sheets separated by collagne bundles and classic staghorn vasculature. (D) Immunohistochemical positivity for CD34, (E) STAT6 and (F) low Ki67 index

Based on the above H&E and immunohistochemical findings we arrived at a diagnosis of a Solitary Fibrous tumor of the prostate.

Postoperatively patient recovered well with improvement in IPSS score to 8. Patient is in close follow up.

III. Discussion

Mesenchymal lesions of the prostate are rare neoplasms and often pose a diagnostic challenge due to an overlap in their histomorphological as well as immunohistochemical features.[7-9] Mesenchymal lesions of prostate encompass a wide range of lesions including stromal proliferation, solitary fibrous tumour, leiomyoma, Inflammatory myofibroblastic tumor, Schwannoma, liposarcoma, angiosarcoma, and rhabdomyosarcoma. While prostatic stromal proliferation is the most common mesenchymal neoplasms in the prostate, solitary fibrous tumors are regarded as the least common.[7-9].

Solitary fibrous tumors of the prostate are usually seen in middle-aged adults ranging between 50-87 years with a mean age of presentation of 55 years

and present as slow-growing masses.[10-12] The tumor may remain asymptomatic initially however with increase in size they most commonly present with urinary retention, increased frequency, urgency, dysuria, hematuria, constipation and groin and abdominal pain.[10,11.] The PSA levels are usually within normal limits and hypoglycemia reported in pleural solitary fibrous tumors is not frequently observed in prostatic solitary fibrous tumors.[12,13] The tumor size shows a wide size distribution ranging from 2-14cm and can weigh anywhere between 5 gm to 170 g.[11-13] In fact, in a case reported by Gharaee-Khermani et al[11] the prostate weighed more than 700 gm.

Gross examination of SFTs usually reveals a well circumscribed grey white mass whose cut surface is nodular and may show a whorling pattern. Histomorphologically it is composed of spindle cells arranged in a herringbone or storiform pattern or the so-called patternless sheets comprised of alternating hyper and hypocellular areas or a combination of all the above patterns admixed with thick bands of collagen fibers and intervening haemangiopericytomatous or staghorn vessels.[13-15] Solitary fibrous tumors are usually benign however increased cellularity, high mitotic figures (>4/10 HPF), nuclear pleomorphism, the presence of necrosis and infiltrative borders may favor the diagnosis of malignant solitary fibrous tumor[10,13] However these criteria are not definite and don't seem to have any significant impact on the outcome.[10,13] Immunohistochemically the cells are positive for CD34, Vimentin,and bcl2, CD99, and SMA but negative for S100, Actin, desmin, epithelial markers and CD117.[10-19] These lesions may be associated with adjacent prostatic adenocarcinoma. Two cases, one reported by Moureau-Zabotto et al[12] and one reported in a case series by Herawi et al[19] additionally showed adenocarcinoma in the adjacent prostatic parenchyma.

The differential diagnosis for these tumors can be other mesenchymal lesions of the prostate. Stromal nodules and stromal tumor of uncertain malignant potential (STUMP) are both composed of spindle cells intermixed with blood vessels but show entrapped normal prostatic glands which are usually absent in SFTs. STUMP also shows a positivity for CD34, however, it is also positive for PR whereas SFTs are negative for PR.[13] The other tumors of mesenchymal origin include leiomyoma, leiomyosarcoma, rhabdomyosarcoma, Inflammatory myofibroblastic tumor, fibrosarcoma, synovial sarcoma and GIST.[13,17,18] In contrast to SFT leiomyoma and leiomyosarcomas show a more uniform fascicular pattern and are positive for desmin and SMA.[13,19] Rhabdomyosarcomas are usually encountered in the younger age group with embryonal morphology and positivity for myogenin and desmin.[13] Fibrosarcoma and synovial sarcoma can be differentiated from SFT by their bimodal pattern and negativity for CD34.[13,14] IMFT usually shows inflammatory cells admixed with spindle cells and positivity for ALK.[13,18-20] GIST which also shows spindle cell morphology can be differentiated from SFT with the help of CD117 which is positive in GIST but negative in SFT.[13-19] Sarcomatoid carcinoma is another important tumor which needs to be differentiated from SFT and this is done with the aid of keratins which are positive in Sarcomatoid carcinomas[13, 18]

Classically the immunohistochemical panel of CD34, CD99, and bcl-2 has aided the diagnosis of SFT, however, it has now been proven that these markers have a poor specificity. CD34 is positive in other spindle cell lesions like GIST, stromal tumors of prostate and Schwannoma thus making it difficult to differentiate them from SFT.[17,21-24] Recent genomic studies have identified a fusion gene NAB2-STAT6 in almost 100% of the SFTs.[11,24-26] This has led to the development of a novel nuclear marker STAT6 which is considered a highly specific and sensitive marker for SFT. NAB2 is located in the nucleus and encodes zinc finger transcription factors involved in regulating differentiation and proliferation. STAT6, a cytoplasmic protein relocates to the nucleus on activation and is involved in signal transduction.[22,24] The NAB2-STAT6 fusion gene exerts an oncogenic effect by induction of EGR mediated transcription.[24] Except for few ambiguous meningeal lesion showing features of both meningioma and SFT, NAB2-STAT6 fusion gene has been seen almost exclusively in SFT.[24-26] Thus,STAT6 nuclear expression is now identified as the most reliable marker of SFT.[21-24] ALDH1, a cytoplasmic protein has been identified in 75% of the SFTs and a study by Guner et al[22] has shown that a combination of ALDH1and STAT6 greatly increased the specificity.

Extrapleural SFTs are generally thought to have an indolent course in comparison to their pleural counterparts however a local recurrence or distant metastasis has been noticed in upto 20% of the cases.[10,12,2124] Solitary fibrous tumors are relatively unresponsive to chemotherapy or radiotherapy, thus irrespective of the benign or malignant nature of the tumor a complete excision of the tumor with negative margins is the treatment of choice and is also the most important prognostic factor.[12,15-18]

IV. Conclusion

We have reported a rare case of Solitary fibrous tumor arising in the prostate in a 43-year-old male patient presenting with obstructive urinary symptoms. The lesion comprised of haphazardly arranged spindle cells admixed with bands of collagen and stag horn blood vessels. In concordance with recent studies, our case was showed a nuclear positivity for CD34 and STAT6. The patient underwent complete excision and had an uneventful recovery. Prostatic SFTs are extremely and it is extremely important to differentiate

them the from other spindle cell lesions. Owing to the rarity of prostatic solitary fibrous tumor, there is limited data regarding the clinical behaviour as well as the outcome of the tumor, thus, it is important to identify the lesion and keep the patient on close follow-up.

References Références Referencias

1. Han Y, Fu X, Song Y, Wang J, Ren T. Clinicopathologic features and prognostic factors of extrapleural solitary fibrous tumor. Int J Clin Exp Pathol 2016: 9: 9259-67.
2. Brunnemann R. B, Ro J. Y, Ordonez N. G, Mooney J, El-Naggar A. K, Ayala A. G. Extrapleural solitary fibrous tumor: a clinicopathological study of 24 cases. Mod Pathol. 1999: 12: 1034-42.
3. Shanbhogue A. K, Prasad S. R, Takahashi N, Vikram R, Zaheer A, Sandrasegaran K. Somatic and visceral solitary fibrous tumors in the abdomen and pelvis: cross-sectional imaging spectrum. Radiographics. 2011: 31: 393-408.
4. Bhargava P, Lee J. H, Gupta S, Seyal A. R, Vakar-Lopez F, Moshiri M, et al. Radiologic-pathologic findings of solitary fibrous tumor of the prostate presenting as a large mass with delayed filling-in on MRI. Radiol Case Rep. 2015: 7: 634.
5. Westra W. H, Grenko R. T, Epstein J. Solitary fibrous tumor of the lower urogenital tract: a report of five cases involving the seminal vesicles, urinary bladder, and prostate. Hum Pathol 2000: 31: 63-8.
6. Grasso M, Blanco S, Lania C, DI Bella C, Crippa C. Solitary fibrous tumour of the prostate. The Journal of Urology. 168: 1100.
7. McKenney J. K. Mesenchymal tumors of the prostate. Mod Pathol. 2018: 31: S133-142.
8. Hansel D. E, ENT G. J, Montgomery E. A, Epstein J. I. Mesenchymal Tumors of the Prostate. Surg Pathol Clin. 2008: 1: 105-28.
9. Tavora F, Kryvenko O. N, Epstein J. I. Mesenchymal tumours of the bladder and prostate: an update. Pathology. 2013: 45: 104-15.
10. Gu Y, Wei H, Rong C, Song Z, Fu Y, Gao B. Prostate solitary fibrous tumor: a case report and review of literature. Int J Cain Exo Pathol 2016: 9: 9657-9680.
11. Gharaee-Kermani M, Mehra R, Robinson D. R, Wei J. T, Macoska J. A. Complex cellular composition of solitary fibrous tumor of the prostate. Am J Pathol. 2014: 184: 732-9.
12. Moureau-Zabotto L, Chetaille B, Bladou F, Marcy M, Perrot D, Guiramand J, et al. Solitary Fibrous Tumor of the Prostate: Case Report and Review of the Literature. Case Rep Oncol. 2012: 5: 22-29.
13. Dhameja N, Santosh D, Vikash, Dwivedi U. S. Solitary fibrous tumour of the prostate with ossification rare case report. Annals of Pathology and Laboratory Medicine. 2015: 2: 147-150.
14. Sekine H, Ohya K, Kojima S, Mizuguchi K. Solitary fibrous tumor of the prostate. Int J Urol. 2001: 8: 137-8.
15. Yang W, Sun F, Liu H, Wang G, Shi P, Shao Z, et al. Solitary fibrous tumors of the prostate: A case report. Oncol Lett. 2015: 10: 1617-1619.
16. Nair B, Nambiar A, Hattangadi S. B, Sukumar A, Saifuddin MSC. Solitary fibrous tumour of prostate evaluation and management of a rare tumour. Stand J of Urol and Nephrol. 2007: 41: 442-444.
17. Pins M. R, Campbell S. C, Laskin W. B, Steinbronn K, Dalton D. P. Solitary fibrous tumor of the prostate a report of 2 cases and review of the literature. Arch Pathol Lab Med. 2001: 125: 274-7.
18. Galosi A. B, Mazzucchelli R, Scarpelli M, Lopez-Beltran A, Cheng L, Muzzonigro G, Montironi R. Solitary fibrous tumour of the prostate identified on needle biopsy. Eur Urol. 2009: 56: 564-7.
19. Herawi M, Epstein J. I. Solitary fibrous tumor on needle biopsy and transurethral resection of the prostate: a clinicopathologic study of 13 cases. Am J Surg Pathol. 2007 : 31: 870-6.
20. Talvitie H, Aström K, Larsson O, Ahlén J, Bergh A, Egevad L. Solitary fibrous tumor of the prostate: a report of two cases. Pathol Int. 2011: 61: 536-8.
21. El Farrah A. M An Already Rare Malignant Solitary Fibrous Tumor of the Prostate With Metastasis to the Lung: A Case Report, and Review of the Literature. Case Report and Literature Review. J Clinical Case Rep Case Stud 2018: 23-28.
22. Guner G, Bishop J. A, Bezerra S. M, Taheri D, Zahavi D. J, Mendoza Rodriguez M. A, et al. The utility of STAT6 and ALDH1 expression in the differential diagnosis of solitary fibrous tumor versus prostate-specific stromal neoplasms. Hum Pathol. 2016: 54: 184-8.
23. Ronchi A, La Mantia E, Gigantino V, Perdonà S, De Sio M, Facchini G, et al. A rare case of malignant solitary fibrous tumor in prostate with review of the literature. Diagn Pathol. 2017: 7: 12:50.
24. Yoshida A, Tsuta K, Ohno M, Yoshida M, Narita Y, Kawai A, et al. STAT6 immunohistochemistry is helpful in the diagnosis of solitary fibrous tumors. Am J Surg Pathol. 2014: 38: 552-9.
25. Robinson D. R, Wu Y. M, Kalyana-Sundaram S, et al. Identification of recurrent NAB2-STAT6 gene fusions in solitary fibrous tumor by integrative sequencing. Nat Genet. 2013: 45: 180-185.
26. Doyle L. A, Vivero M, Fletcher C. D, et al. Nuclear expression of STAT6 distinguishes solitary fibrous tumor from histologic mimics. Mod Pathol. 2013.

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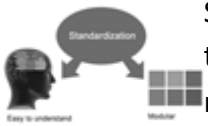

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The FARSM member can apply for grading and certification of standards of their educational and Institutional Degrees to Open Association of Research, Society U.S.A. Once you are designated as FARSM, you may send us a scanned copy of all of you credentials. OARS will verify, grade and certify them. This will be based on your academic records, quality of research papers published by you, and some more criteria. After certification of all your credentials by OARS, they will be published on your Fellow Profile link on website https://associationofresearch.org which will be helpful to upgrade the dignity.

The FARSM members can avail the benefits of free research podcasting in Global Research Radio with their research documents. After publishing the work, (including published elsewhere worldwide with proper authorization) you can upload your research paper with your recorded voice or you can utilize chargeable services of our professional RJs to record your paper in their voice on request.

The FARSM member also entitled to get the benefits of free research podcasting of their research documents through video clips. We can also streamline your conference videos and display your slides/ online slides and online research video clips at reasonable charges, on request.

The FARSM is eligible to earn from sales proceeds of his/her researches/reference/review Books or literature, while publishing with Global Journals. The FARSS can decide whether he/she would like to publish his/her research in a closed manner. In this case, whenever readers purchase that individual research paper for reading, maximum 60% of its profit earned as royalty by Global Journals, will be credited to his/her bank account. The entire entitled amount will be credited to his/her bank account exceeding limit of minimum fixed balance. There is no minimum time limit for collection. The FARSM member can decide its price and we can help in making the right decision.

The FARSM member is eligible to join as a paid peer reviewer at Global Journals Incorporation (USA) and can get remuneration of 15% of author fees, taken from the author of a respective paper. After reviewing 5 or more papers you can request to transfer the amount to your bank account.

MEMBER OF ASSOCIATION OF RESEARCH SOCIETY IN MEDICAL (MARSM)

The ' MARSM ' title is accorded to a selected professional after the approval of the Editor-in-Chief / Editorial Board Members/Dean.

The "MARSM" is a dignified ornament which is accorded to a person's name viz. Dr. John E. Hall, Ph.D., MARSM or William Walldroff, M.S., MARSM.

MARSM accrediting is an honor. It authenticates your research activities. Afterbecoming MARSM,you can add 'MARSM' title with your name as you use this recognition as additional suffix to your status. This will definitely enhance and add more value and repute to your name. You may use it on your professional Counseling Materials such as CV, Resume, Visiting Card and Name Plate etc.

The following benefitscan be availed by you only for next three years from the date of certification.

MARSM designated members are entitled to avail a 25% discount while publishing their research papers (of a single author) in Global Journals Inc., if the same is accepted by our Editorial Board and Peer Reviewers. If you are a main author or co-author of a group of authors, you will get discount of 10%.

As MARSM, you willbe given a renowned, secure and free professional email address with 30 GB of space e.g. johnhall@globaljournals.org. This will include Webmail, Spam Assassin, Email Forwarders,Auto-Responders, Email Delivery Route tracing, etc.

We shall provide you intimation regarding launching of e-version of journal of your stream time to time.This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.

The MARSM member can apply for approval, grading and certification of standards of their educational and Institutional Degrees to Open Association of Research, Society U.S.A.

Once you are designated as MARSM, you may send us a scanned copy of all of your credentials. OARS will verify, grade and certify them. This will be based on your academic records, quality of research papers published by you, and some more criteria.

It is mandatory to read all terms and conditions carefully.

AUXILIARY MEMBERSHIPS

Institutional Fellow of Open Association of Research Society (USA) - OARS (USA)

Global Journals Incorporation (USA) is accredited by Open Association of Research Society, U.S.A (OARS) and in turn, affiliates research institutions as "Institutional Fellow of Open Association of Research Society" (IFOARS).

The "FARSC" is a dignified title which is accorded to a person's name viz. Dr. John E. Hall, Ph.D., FARSC or William Walldroff, M.S., FARSC.

The IFOARS institution is entitled to form a Board comprised of one Chairperson and three to five board members preferably from different streams. The Board will be recognized as "Institutional Board of Open Association of Research Society"-(IBOARS).

The Institute will be entitled to following benefits:

The IBOARS can initially review research papers of their institute and recommend them to publish with respective journal of Global Journals. It can also review the papers of other institutions after obtaining our consent. The second review will be done by peer reviewer of Global Journals Incorporation (USA) The Board is at liberty to appoint a peer reviewer with the approval of chairperson after consulting us.

The author fees of such paper may be waived off up to 40%.

The Global Journals Incorporation (USA) at its discretion can also refer double blind peer reviewed paper at their end to the board for the verification and to get recommendation for final stage of acceptance of publication.

The IBOARS can organize symposium/seminar/conference in their country on behalf of Global Journals Incorporation (USA)-OARS (USA). The terms and conditions can be discussed separately.

The Board can also play vital role by exploring and giving valuable suggestions regarding the Standards of "Open Association of Research Society, U.S.A (OARS)" so that proper amendment can take place for the benefit of entire research community. We shall provide details of particular standard only on receipt of request from the Board.

The board members can also join us as Individual Fellow with 40% discount on total fees applicable to Individual Fellow. They will be entitled to avail all the benefits as declared. Please visit Individual Fellow-sub menu of GlobalJournals.org to have more relevant details.

We shall provide you intimation regarding launching of e-version of journal of your stream time to time. This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.

After nomination of your institution as "Institutional Fellow" and constantly functioning successfully for one year, we can consider giving recognition to your institute to function as Regional/Zonal office on our behalf.
The board can also take up the additional allied activities for betterment after our consultation.

The following entitlements are applicable to individual Fellows:

Open Association of Research Society, U.S.A (OARS) By-laws states that an individual Fellow may use the designations as applicable, or the corresponding initials. The Credentials of individual Fellow and Associate designations signify that the individual has gained knowledge of the fundamental concepts. One is magnanimous and proficient in an expertise course covering the professional code of conduct, and follows recognized standards of practice.

Open Association of Research Society (US)/ Global Journals Incorporation (USA), as described in Corporate Statements, are educational, research publishing and professional membership organizations. Achieving our individual Fellow or Associate status is based mainly on meeting stated educational research requirements.

Disbursement of 40% Royalty earned through Global Journals : Researcher = 50%, Peer Reviewer = 37.50%, Institution = 12.50% E.g. Out of 40%, the 20% benefit should be passed on to researcher, 15 % benefit towards remuneration should be given to a reviewer and remaining 5% is to be retained by the institution.

We shall provide print version of 12 issues of any three journals [as per your requirement] out of our 38 journals worth $ 2376 USD.

Other:

The individual Fellow and Associate designations accredited by Open Association of Research Society (US) credentials signify guarantees following achievements:

- The professional accredited with Fellow honor, is entitled to various benefits viz. name, fame, honor, regular flow of income, secured bright future, social status etc.

- In addition to above, if one is single author, then entitled to 40% discount on publishing research paper and can get 10%discount if one is co-author or main author among group of authors.
- The Fellow can organize symposium/seminar/conference on behalf of Global Journals Incorporation (USA) and he/she can also attend the same organized by other institutes on behalf of Global Journals.
- The Fellow can become member of Editorial Board Member after completing 3yrs.
- The Fellow can earn 60% of sales proceeds from the sale of reference/review books/literature/publishing of research paper.
- Fellow can also join as paid peer reviewer and earn 15% remuneration of author charges and can also get an opportunity to join as member of the Editorial Board of Global Journals Incorporation (USA)
- • This individual has learned the basic methods of applying those concepts and techniques to common challenging situations. This individual has further demonstrated an in–depth understanding of the application of suitable techniques to a particular area of research practice.

Note :

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- In future, if the board feels the necessity to change any board member, the same can be done with the consent of the chairperson along with anyone board member without our approval.
- In case, the chairperson needs to be replaced then consent of 2/3rd board members are required and they are also required to jointly pass the resolution copy of which should be sent to us. In such case, it will be compulsory to obtain our approval before replacement.
- In case of "Difference of Opinion [if any]" among the Board members, our decision will be final and binding to everyone.

"

Preferred Author Guidelines

We accept the manuscript submissions in any standard (generic) format.

We typeset manuscripts using advanced typesetting tools like Adobe In Design, CorelDraw, TeXnicCenter, and TeXStudio. We usually recommend authors submit their research using any standard format they are comfortable with, and let Global Journals do the rest.

Alternatively, you can download our basic template from https://globaljournals.org/Template

Authors should submit their complete paper/article, including text illustrations, graphics, conclusions, artwork, and tables. Authors who are not able to submit manuscript using the form above can email the manuscript department at submit@globaljournals.org or get in touch with chiefeditor@globaljournals.org if they wish to send the abstract before submission.

Before and during Submission

Authors must ensure the information provided during the submission of a paper is authentic. Please go through the following checklist before submitting:

1. Authors must go through the complete author guideline and understand and *agree to Global Journals' ethics and code of conduct,* along with author responsibilities.
2. Authors must accept the privacy policy, terms, and conditions of Global Journals.
3. Ensure corresponding author's email address and postal address are accurate and reachable.
4. Manuscript to be submitted must include keywords, an abstract, a paper title, co-author(s') names and details (email address, name, phone number, and institution), figures and illustrations in vector format including appropriate captions, tables, including titles and footnotes, a conclusion, results, acknowledgments and references.
5. Authors should submit paper in a ZIP archive if any supplementary files are required along with the paper.
6. Proper permissions must be acquired for the use of any copyrighted material.
7. Manuscript submitted *must not have been submitted or published elsewhere* and all authors must be aware of the submission.

Declaration of Conflicts of Interest

It is required for authors to declare all financial, institutional, and personal relationships with other individuals and organizations that could influence (bias) their research.

Policy on Plagiarism

Plagiarism is not acceptable in Global Journals submissions at all.

Plagiarized content will not be considered for publication. We reserve the right to inform authors' institutions about plagiarism detected either before or after publication. If plagiarism is identified, we will follow COPE guidelines:

Authors are solely responsible for all the plagiarism that is found. The author must not fabricate, falsify or plagiarize existing research data. The following, if copied, will be considered plagiarism:

- Words (language)
- Ideas
- Findings
- Writings
- Diagrams
- Graphs
- Illustrations
- Lectures

- Printed material
- Graphic representations
- Computer programs
- Electronic material
- Any other original work

Authorship Policies

Global Journals follows the definition of authorship set up by the Open Association of Research Society, USA. According to its guidelines, authorship criteria must be based on:

1. Substantial contributions to the conception and acquisition of data, analysis, and interpretation of findings.
2. Drafting the paper and revising it critically regarding important academic content.
3. Final approval of the version of the paper to be published.

Changes in Authorship

The corresponding author should mention the name and complete details of all co-authors during submission and in manuscript. We support addition, rearrangement, manipulation, and deletions in authors list till the early view publication of the journal. We expect that corresponding author will notify all co-authors of submission. We follow COPE guidelines for changes in authorship.

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Appealing Decisions

Unless specified in the notification, the Editorial Board's decision on publication of the paper is final and cannot be appealed before making the major change in the manuscript.

Acknowledgments

Contributors to the research other than authors credited should be mentioned in Acknowledgments. The source of funding for the research can be included. Suppliers of resources may be mentioned along with their addresses.

Declaration of funding sources

Global Journals is in partnership with various universities, laboratories, and other institutions worldwide in the research domain. Authors are requested to disclose their source of funding during every stage of their research, such as making analysis, performing laboratory operations, computing data, and using institutional resources, from writing an article to its submission. This will also help authors to get reimbursements by requesting an open access publication letter from Global Journals and submitting to the respective funding source.

Preparing your Manuscript

Authors can submit papers and articles in an acceptable file format: MS Word (doc, docx), LaTeX (.tex, .zip or .rar including all of your files), Adobe PDF (.pdf), rich text format (.rtf), simple text document (.txt), Open Document Text (.odt), and Apple Pages (.pages). Our professional layout editors will format the entire paper according to our official guidelines. This is one of the highlights of publishing with Global Journals—authors should not be concerned about the formatting of their paper. Global Journals accepts articles and manuscripts in every major language, be it Spanish, Chinese, Japanese, Portuguese, Russian, French, German, Dutch, Italian, Greek, or any other national language, but the title, subtitle, and abstract should be in English. This will facilitate indexing and the pre-peer review process.

The following is the official style and template developed for publication of a research paper. Authors are not required to follow this style during the submission of the paper. It is just for reference purposes.

Manuscript Style Instruction (Optional)

- Microsoft Word Document Setting Instructions.
- Font type of all text should be Swis721 Lt BT.
- Page size: 8.27" x 11'", left margin: 0.65, right margin: 0.65, bottom margin: 0.75.
- Paper title should be in one column of font size 24.
- Author name in font size of 11 in one column.
- Abstract: font size 9 with the word "Abstract" in bold italics.
- Main text: font size 10 with two justified columns.
- Two columns with equal column width of 3.38 and spacing of 0.2.
- First character must be three lines drop-capped.
- The paragraph before spacing of 1 pt and after of 0 pt.
- Line spacing of 1 pt.
- Large images must be in one column.
- The names of first main headings (Heading 1) must be in Roman font, capital letters, and font size of 10.
- The names of second main headings (Heading 2) must not include numbers and must be in italics with a font size of 10.

Structure and Format of Manuscript

The recommended size of an original research paper is under 15,000 words and review papers under 7,000 words. Research articles should be less than 10,000 words. Research papers are usually longer than review papers. Review papers are reports of significant research (typically less than 7,000 words, including tables, figures, and references)

A research paper must include:

a) A title which should be relevant to the theme of the paper.
b) A summary, known as an abstract (less than 150 words), containing the major results and conclusions.
c) Up to 10 keywords that precisely identify the paper's subject, purpose, and focus.
d) An introduction, giving fundamental background objectives.
e) Resources and techniques with sufficient complete experimental details (wherever possible by reference) to permit repetition, sources of information must be given, and numerical methods must be specified by reference.
f) Results which should be presented concisely by well-designed tables and figures.
g) Suitable statistical data should also be given.
h) All data must have been gathered with attention to numerical detail in the planning stage.

Design has been recognized to be essential to experiments for a considerable time, and the editor has decided that any paper that appears not to have adequate numerical treatments of the data will be returned unrefereed.

i) Discussion should cover implications and consequences and not just recapitulate the results; conclusions should also be summarized.
j) There should be brief acknowledgments.
k) There ought to be references in the conventional format. Global Journals recommends APA format.

Authors should carefully consider the preparation of papers to ensure that they communicate effectively. Papers are much more likely to be accepted if they are carefully designed and laid out, contain few or no errors, are summarizing, and follow instructions. They will also be published with much fewer delays than those that require much technical and editorial correction.

The Editorial Board reserves the right to make literary corrections and suggestions to improve brevity.

Format Structure

It is necessary that authors take care in submitting a manuscript that is written in simple language and adheres to published guidelines.

All manuscripts submitted to Global Journals should include:

Title

The title page must carry an informative title that reflects the content, a running title (less than 45 characters together with spaces), names of the authors and co-authors, and the place(s) where the work was carried out.

Author details

The full postal address of any related author(s) must be specified.

Abstract

The abstract is the foundation of the research paper. It should be clear and concise and must contain the objective of the paper and inferences drawn. It is advised to not include big mathematical equations or complicated jargon.

Many researchers searching for information online will use search engines such as Google, Yahoo or others. By optimizing your paper for search engines, you will amplify the chance of someone finding it. In turn, this will make it more likely to be viewed and cited in further works. Global Journals has compiled these guidelines to facilitate you to maximize the web-friendliness of the most public part of your paper.

Keywords

A major lynchpin of research work for the writing of research papers is the keyword search, which one will employ to find both library and internet resources. Up to eleven keywords or very brief phrases have to be given to help data retrieval, mining, and indexing.

One must be persistent and creative in using keywords. An effective keyword search requires a strategy: planning of a list of possible keywords and phrases to try.

Choice of the main keywords is the first tool of writing a research paper. Research paper writing is an art. Keyword search should be as strategic as possible.

One should start brainstorming lists of potential keywords before even beginning searching. Think about the most important concepts related to research work. Ask, “What words would a source have to include to be truly valuable in a research paper?” Then consider synonyms for the important words.

It may take the discovery of only one important paper to steer in the right keyword direction because, in most databases, the keywords under which a research paper is abstracted are listed with the paper.

Numerical Methods

Numerical methods used should be transparent and, where appropriate, supported by references.

Abbreviations

Authors must list all the abbreviations used in the paper at the end of the paper or in a separate table before using them.

Formulas and equations

Authors are advised to submit any mathematical equation using either MathJax, KaTeX, or LaTeX, or in a very high-quality image.

Tables, Figures, and Figure Legends

Tables: Tables should be cautiously designed, uncrowned, and include only essential data. Each must have an Arabic number, e.g., Table 4, a self-explanatory caption, and be on a separate sheet. Authors must submit tables in an editable format and not as images. References to these tables (if any) must be mentioned accurately.

Figures

Figures are supposed to be submitted as separate files. Always include a citation in the text for each figure using Arabic numbers, e.g., Fig. 4. Artwork must be submitted online in vector electronic form or by emailing it.

Preparation of Eletronic Figures for Publication

Although low-quality images are sufficient for review purposes, print publication requires high-quality images to prevent the final product being blurred or fuzzy. Submit (possibly by e-mail) EPS (line art) or TIFF (halftone/ photographs) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Avoid using pixel-oriented software. Scans (TIFF only) should have a resolution of at least 350 dpi (halftone) or 700 to 1100 dpi (line drawings). Please give the data for figures in black and white or submit a Color Work Agreement form. EPS files must be saved with fonts embedded (and with a TIFF preview, if possible).

For scanned images, the scanning resolution at final image size ought to be as follows to ensure good reproduction: line art: >650 dpi; halftones (including gel photographs): >350 dpi; figures containing both halftone and line images: >650 dpi.

Color charges: Authors are advised to pay the full cost for the reproduction of their color artwork. Hence, please note that if there is color artwork in your manuscript when it is accepted for publication, we would require you to complete and return a Color Work Agreement form before your paper can be published. Also, you can email your editor to remove the color fee after acceptance of the paper.

Tips for writing a good quality Medical Research Paper

1. Choosing the topic: In most cases, the topic is selected by the interests of the author, but it can also be suggested by the guides. You can have several topics, and then judge which you are most comfortable with. This may be done by asking several questions of yourself, like "Will I be able to carry out a search in this area? Will I find all necessary resources to accomplish the search? Will I be able to find all information in this field area?" If the answer to this type of question is "yes," then you ought to choose that topic. In most cases, you may have to conduct surveys and visit several places. Also, you might have to do a lot of work to find all the rises and falls of the various data on that subject. Sometimes, detailed information plays a vital role, instead of short information. Evaluators are human: The first thing to remember is that evaluators are also human beings. They are not only meant for rejecting a paper. They are here to evaluate your paper. So present your best aspect.

2. Think like evaluators: If you are in confusion or getting demotivated because your paper may not be accepted by the evaluators, then think, and try to evaluate your paper like an evaluator. Try to understand what an evaluator wants in your research paper, and you will automatically have your answer. Make blueprints of paper: The outline is the plan or framework that will help you to arrange your thoughts. It will make your paper logical. But remember that all points of your outline must be related to the topic you have chosen.

3. Ask your guides: If you are having any difficulty with your research, then do not hesitate to share your difficulty with your guide (if you have one). They will surely help you out and resolve your doubts. If you can't clarify what exactly you require for your work, then ask your supervisor to help you with an alternative. He or she might also provide you with a list of essential readings.

4. Use of computer is recommended: As you are doing research in the field of medical research then this point is quite obvious. Use right software: Always use good quality software packages. If you are not capable of judging good software, then you can lose the quality of your paper unknowingly. There are various programs available to help you which you can get through the internet.

5. Use the internet for help: An excellent start for your paper is using Google. It is a wondrous search engine, where you can have your doubts resolved. You may also read some answers for the frequent question of how to write your research paper or find a model research paper. You can download books from the internet. If you have all the required books, place importance on reading, selecting, and analyzing the specified information. Then sketch out your research paper. Use big pictures: You may use encyclopedias like Wikipedia to get pictures with the best resolution. At Global Journals, you should strictly follow here.

6. Bookmarks are useful: When you read any book or magazine, you generally use bookmarks, right? It is a good habit which helps to not lose your continuity. You should always use bookmarks while searching on the internet also, which will make your search easier.

7. Revise what you wrote: When you write anything, always read it, summarize it, and then finalize it.

8. Make every effort: Make every effort to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in the introduction—what is the need for a particular research paper. Polish your work with good writing skills and always give an evaluator what he wants. Make backups: When you are going to do any important thing like making a research paper, you should always have backup copies of it either on your computer or on paper. This protects you from losing any portion of your important data.

9. Produce good diagrams of your own: Always try to include good charts or diagrams in your paper to improve quality. Using several unnecessary diagrams will degrade the quality of your paper by creating a hodgepodge. So always try to include diagrams which were made by you to improve the readability of your paper. Use of direct quotes: When you do research relevant to literature, history, or current affairs, then use of quotes becomes essential, but if the study is relevant to science, use of quotes is not preferable.

10. Use proper verb tense: Use proper verb tenses in your paper. Use past tense to present those events that have happened. Use present tense to indicate events that are going on. Use future tense to indicate events that will happen in the future. Use of wrong tenses will confuse the evaluator. Avoid sentences that are incomplete.

11. Pick a good study spot: Always try to pick a spot for your research which is quiet. Not every spot is good for studying.

12. Know what you know: Always try to know what you know by making objectives, otherwise you will be confused and unable to achieve your target.

13. Use good grammar: Always use good grammar and words that will have a positive impact on the evaluator; use of good vocabulary does not mean using tough words which the evaluator has to find in a dictionary. Do not fragment sentences. Eliminate one-word sentences. Do not ever use a big word when a smaller one would suffice.

Verbs have to be in agreement with their subjects. In a research paper, do not start sentences with conjunctions or finish them with prepositions. When writing formally, it is advisable to never split an infinitive because someone will (wrongly) complain. Avoid clichés like a disease. Always shun irritating alliteration. Use language which is simple and straightforward. Put together a neat summary.

14. Arrangement of information: Each section of the main body should start with an opening sentence, and there should be a changeover at the end of the section. Give only valid and powerful arguments for your topic. You may also maintain your arguments with records.

15. Never start at the last minute: Always allow enough time for research work. Leaving everything to the last minute will degrade your paper and spoil your work.

16. Multitasking in research is not good: Doing several things at the same time is a bad habit in the case of research activity. Research is an area where everything has a particular time slot. Divide your research work into parts, and do a particular part in a particular time slot.

17. Never copy others' work: Never copy others' work and give it your name because if the evaluator has seen it anywhere, you will be in trouble. Take proper rest and food: No matter how many hours you spend on your research activity, if you are not taking care of your health, then all your efforts will have been in vain. For quality research, take proper rest and food.

18. Go to seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.

19. Refresh your mind after intervals: Try to give your mind a rest by listening to soft music or sleeping in intervals. This will also improve your memory. Acquire colleagues: Always try to acquire colleagues. No matter how sharp you are, if you acquire colleagues, they can give you ideas which will be helpful to your research.

20. Think technically: Always think technically. If anything happens, search for its reasons, benefits, and demerits. Think and then print: When you go to print your paper, check that tables are not split, headings are not detached from their descriptions, and page sequence is maintained.

21. Adding unnecessary information: Do not add unnecessary information like "I have used MS Excel to draw graphs." Irrelevant and inappropriate material is superfluous. Foreign terminology and phrases are not apropos. One should never take a broad view. Analogy is like feathers on a snake. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Never oversimplify: When adding material to your research paper, never go for oversimplification; this will definitely irritate the evaluator. Be specific. Never use rhythmic redundancies. Contractions shouldn't be used in a research paper. Comparisons are as terrible as clichés. Give up ampersands, abbreviations, and so on. Remove commas that are not necessary. Parenthetical words should be between brackets or commas. Understatement is always the best way to put forward earth-shaking thoughts. Give a detailed literary review.

22. Report concluded results: Use concluded results. From raw data, filter the results, and then conclude your studies based on measurements and observations taken. An appropriate number of decimal places should be used. Parenthetical remarks are prohibited here. Proofread carefully at the final stage. At the end, give an outline to your arguments. Spot perspectives of further study of the subject. Justify your conclusion at the bottom sufficiently, which will probably include examples.

23. Upon conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium though which your research is going to be in print for the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects of your research.

Informal Guidelines of Research Paper Writing

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form which is presented in the guidelines using the template.
- Please note the criteria peer reviewers will use for grading the final paper.

Final points:

One purpose of organizing a research paper is to let people interpret your efforts selectively. The journal requires the following sections, submitted in the order listed, with each section starting on a new page:

The introduction: This will be compiled from reference matter and reflect the design processes or outline of basis that directed you to make a study. As you carry out the process of study, the method and process section will be constructed like that. The results segment will show related statistics in nearly sequential order and direct reviewers to similar intellectual paths throughout the data that you gathered to carry out your study.

The discussion section:

This will provide understanding of the data and projections as to the implications of the results. The use of good quality references throughout the paper will give the effort trustworthiness by representing an alertness to prior workings.

Writing a research paper is not an easy job, no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record-keeping are the only means to make straightforward progression.

General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear: Adhere to recommended page limits.

Mistakes to avoid:

- Insertion of a title at the foot of a page with subsequent text on the next page.
- Separating a table, chart, or figure—confine each to a single page.
- Submitting a manuscript with pages out of sequence.
- In every section of your document, use standard writing style, including articles ("a" and "the").
- Keep paying attention to the topic of the paper.
- Use paragraphs to split each significant point (excluding the abstract).
- Align the primary line of each section.
- Present your points in sound order.
- Use present tense to report well-accepted matters.
- Use past tense to describe specific results.
- Do not use familiar wording; don't address the reviewer directly. Don't use slang or superlatives.
- Avoid use of extra pictures—include only those figures essential to presenting results.

Title page:

Choose a revealing title. It should be short and include the name(s) and address(es) of all authors. It should not have acronyms or abbreviations or exceed two printed lines.

Abstract: This summary should be two hundred words or less. It should clearly and briefly explain the key findings reported in the manuscript and must have precise statistics. It should not have acronyms or abbreviations. It should be logical in itself. Do not cite references at this point.

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Approach:

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Approach:

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References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

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