Online ISSN: 2249-4618 Print ISSN: 0975-5888 DOI: 10.17406/GJMRA



of Medical Research: H

Orthopedic & Musculoskeletal System

Accident at Work in Brazil

Fracture and Surgical Management

Highlights

Children with Spinal Deformities

Prevalence of Musculoskeletal Injuries

Discovering Thoughts, Inventing Future

**VOLUME 23** 

ISSUE 2

VERSION 1.0



# GLOBAL JOURNAL OF MEDICAL RESEARCH: H ORTHOPEDIC AND MUSCULOSKELETAL SYSTEM

# Global Journal of Medical Research: H Orthopedic and Musculoskeletal System

VOLUME 23 ISSUE 2 (VER. 1.0)

OPEN ASSOCIATION OF RESEARCH SOCIETY

# © Global Journal of Medical Research. 2023.

All rights reserved.

This is a special issue published in version 1.0 of "Global Journal of Medical Research." By Global Journals Inc.

All articles are open access articles distributed under "Global Journal of Medical Research"

Reading License, which permits restricted use. Entire contents are copyright by of "Global Journal of Medical Research" unless otherwise noted on specific articles.

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without written permission.

The opinions and statements made in this book are those of the authors concerned.

Ultraculture has not verified and neither confirms nor denies any of the foregoing and no warranty or fitness is implied.

Engage with the contents herein at your own risk

The use of this journal, and the terms and conditions for our providing information, is governed by our Disclaimer, Terms and Conditions and Privacy Policy given on our website <a href="http://globaljournals.us/terms-and-condition/">http://globaljournals.us/terms-and-condition/</a>

menu-id-1463/

By referring / using / reading / any type of association / referencing this journal, this signifies and you acknowledge that you have read them and that you accept and will be bound by the terms thereof.

All information, journals, this journal, activities undertaken, materials, services and our website, terms and conditions, privacy policy, and this journal is subject to change anytime without any prior notice.

Incorporation No.: 0423089 License No.: 42125/022010/1186 Registration No.: 430374 Import-Export Code: 1109007027 Employer Identification Number (EIN): USA Tax ID: 98-0673427

# Global Journals Inc.

(A Delaware USA Incorporation with "Good Standing"; Reg. Number: 0423089)

Sponsors: Open Association of Research Society

Open Scientific Standards

# Publisher's Headquarters office

Global Journals® Headquarters 945th Concord Streets, Framingham Massachusetts Pin: 01701, United States of America USA Toll Free: +001-888-839-7392

USA Toll Free: +001-888-839-7392 USA Toll Free Fax: +001-888-839-7392

# Offset Typesetting

Global Journals Incorporated 2nd, Lansdowne, Lansdowne Rd., Croydon-Surrey, Pin: CR9 2ER, United Kingdom

# Packaging & Continental Dispatching

Global Journals Pvt Ltd E-3130 Sudama Nagar, Near Gopur Square, Indore, M.P., Pin:452009, India

# Find a correspondence nodal officer near you

To find nodal officer of your country, please email us at *local@globaljournals.org* 

#### *eContacts*

Press Inquiries: press@globaljournals.org
Investor Inquiries: investors@globaljournals.org
Technical Support: technology@globaljournals.org
Media & Releases: media@globaljournals.org

# Pricing (Excluding Air Parcel Charges):

Yearly Subscription (Personal & Institutional) 250 USD (B/W) & 350 USD (Color)

# EDITORIAL BOARD

#### GLOBAL JOURNAL OF MEDICAL RESEARCH

# Dr. Apostolos Ch. Zarros

DM, Degree (Ptychio) holder in Medicine,
National and Kapodistrian University of Athens
MRes, Master of Research in Molecular Functions in
Disease, University of Glasgow FRNS, Fellow, Royal
Numismatic Society Member, European Society for
Neurochemistry Member, Royal Institute of Philosophy
Scotland, United Kingdom

## Dr. Alfio Ferlito

Professor Department of Surgical Sciences University of Udine School of Medicine, Italy

# Dr. Jixin Zhong

Department of Medicine, Affiliated Hospital of Guangdong Medical College, Zhanjiang, China, Davis Heart and Lung Research Institute, The Ohio State University, Columbus, OH 43210, US

## Rama Rao Ganga

**MBBS** 

MS (Universty of Health Sciences, Vijayawada, India) MRCS (Royal Coillege of Surgeons of Edinburgh, UK) United States

#### Dr. Izzet Yavuz

MSc, Ph.D., D Ped Dent.

Associate Professor, Pediatric Dentistry Faculty of Dentistry, University of Dicle Diyarbakir, Turkey

# Sanguansak Rerksuppaphol

Department of Pediatrics Faculty of Medicine Srinakharinwirot University NakornNayok, Thailand

# Dr. William Chi-shing Cho

Ph.D.,

Department of Clinical Oncology Queen Elizabeth Hospital Hong Kong

# Dr. Michael Wink

Ph.D., Technical University Braunschweig, Germany
Head of Department Institute of Pharmacy and Molecular
Biotechnology, Heidelberg University, Germany

# Dr. Pejcic Ana

Assistant Medical Faculty Department of Periodontology and Oral Medicine University of Nis, Serbia

#### Dr. Ivandro Soares Monteiro

M.Sc., Ph.D. in Psychology Clinic, Professor University of Minho, Portugal

# Dr. Sanjay Dixit, M.D.

Director, EP Laboratories, Philadelphia VA Medical Center Cardiovascular Medicine - Cardiac Arrhythmia Univ of Penn School of Medicine Web: pennmedicine.org/wagform/MainPage.aspx?

# Antonio Simone Laganà

M.D. Unit of Gynecology and Obstetrics

Department of Human Pathology in Adulthood and
Childhood "G. Barresi" University of Messina, Italy

# Dr. Han-Xiang Deng

MD., Ph.D

Associate Professor and Research Department

Division of Neuromuscular Medicine

Davee Department of Neurology and Clinical

Neurosciences

Northwestern University Feinberg School of Medicine

Web: neurology.northwestern.edu/faculty/deng.html

## Dr. Roberto Sanchez

Associate Professor

Department of Structural and Chemical Biology

Mount Sinai School of Medicine

Ph.D., The Rockefeller University

Web: mountsinai.org/

# Dr. Feng Feng

Boston University

Microbiology

72 East Concord Street R702

Duke University

United States of America

# Dr. Hrushikesh Aphale

MDS- Orthodontics and Dentofacial Orthopedics.

Fellow- World Federation of Orthodontist, USA.

# Gaurav Singhal

Master of Tropical Veterinary Sciences, currently pursuing Ph.D in Medicine

# Dr. Pina C. Sanelli

Associate Professor of Radiology

Associate Professor of Public Health

Weill Cornell Medical College

Associate Attending Radiologist

NewYork-Presbyterian Hospital

MRI, MRA, CT, and CTA

Neuroradiology and Diagnostic Radiology

M.D., State University of New York at Buffalo,

School of Medicine and Biomedical Sciences

Web: weillcornell.org/pinasanelli/

#### Dr. Michael R. Rudnick

M.D., FACP

Associate Professor of Medicine

Chief, Renal Electrolyte and Hypertension Division (PMC)

Penn Medicine, University of Pennsylvania

Presbyterian Medical Center, Philadelphia

Nephrology and Internal Medicine

Certified by the American Board of Internal Medicine

Web: uphs.upenn.edu/

# Dr. Seung-Yup Ku

M.D., Ph.D., Seoul National University Medical College, Seoul, Korea Department of Obstetrics and Gynecology

Seoul National University Hospital, Seoul, Korea

#### Santhosh Kumar

Reader, Department of Periodontology,

Manipal University, Manipal

#### Dr. Aarti Garg

Bachelor of Dental Surgery (B.D.S.) M.D.S. in Pedodontics and Preventive Dentistr Pursuing Phd in Dentistry

# Sabreena Safuan

Ph.D (Pathology) MSc (Molecular Pathology and Toxicology) BSc (Biomedicine)

#### Getahun Asebe

Veterinary medicine, Infectious diseases, Veterinary Public health, Animal Science

# Dr. Suraj Agarwal

Bachelor of dental Surgery Master of dental Surgery in Oromaxillofacial Radiology.

Diploma in Forensic Science & Oodntology

#### Osama Alali

PhD in Orthodontics, Department of Orthodontics, School of Dentistry, University of Damascus. Damascus, Syria. 2013 Masters Degree in Orthodontics.

#### Prabudh Goel

MCh (Pediatric Surgery, Gold Medalist), FISPU, FICS-IS

# Raouf Hajji

MD, Specialty Assistant Professor in Internal Medicine

#### Surekha Damineni

Ph.D with Post Doctoral in Cancer Genetics

# Arundhati Biswas

MBBS, MS (General Surgery), FCPS, MCh, DNB (Neurosurgery)

## Rui Pedro Pereira de Almeida

Ph.D Student in Health Sciences program, MSc in Quality Management in Healthcare Facilities

# Dr. Sunanda Sharma

B.V.Sc.& AH, M.V.Sc (Animal Reproduction,
Obstetrics & gynaecology),
Ph.D.(Animal Reproduction, Obstetrics & gynaecology)

#### Shahanawaz SD

Master of Physiotherapy in Neurology PhD- Pursuing in Neuro Physiotherapy Master of Physiotherapy in Hospital Management

## Dr. Shabana Naz Shah

PhD. in Pharmaceutical Chemistry

#### Vaishnavi V.K Vedam

Master of dental surgery oral pathology

# Tariq Aziz

PhD Biotechnology in Progress

# CONTENTS OF THE ISSUE

- i. Copyright Notice
- ii. Editorial Board Members
- iii. Chief Author and Dean
- iv. Contents of the Issue
- 1. Impact and Prevalence of Musculoskeletal Injuries due to Accident at Work in Brazil, 2015-2020. *1-5*
- 2. Intraosseous Synovial Cysts of the Scaphoid Bone: A Rare Case of Fracture and Surgical Management. *7-10*
- 3. Clinical Characteristics of Children with Spinal Deformities at Initial Visit to the Clinic. *11-16*
- v. Fellows
- vi. Auxiliary Memberships
- vii. Preferred Author Guidelines
- viii. Index



# GLOBAL JOURNAL OF MEDICAL RESEARCH: H Orthopedic and Musculoskeletal System

Volume 23 Issue 2 Version 1.0 Year 2023

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals Inc. (USA)

Online ISSN: 2249-4618 & Print ISSN: 0975-5888

# Impact and Prevalence of Musculoskeletal Injuries due to Accident at Work in Brazil, 2015-2020

By Bianca G D Oliveira, Iago O Braga, Leonardo C Borduchi, Pedro A M O Siqueira & Renan C Peccinelli

Universidade Salvador

Abstract- Goal: Recognize the relevance of hospitalizations for musculoskeletal injuries due to accidents at work in Brazil.

Methods: It is a retrospective epidemiological study, qualitative/quantitative with secondary data analysis and cross-sectional typology in the public databases of the Ministry of Labor and Social Security, delivered by the Federal Government. Descriptors in health sciences: musculoskeletal injuries; accident at work; injuries due to accidents at work; workers; absenteeism.

Results: In Brazil, during 2015 to 2020, there is evidence of a high number of accidents at work resulting in 65.9% of musculoskeletal injuries. The most affected age was between 30-39 years, the male gender corresponded to 63.3% of the cases, upper limb injuries were the most prevalent, and 36.1 billion were spent in aids.

Keywords: musculoskeletal injuries; accidents at work; injuries due to accident at work; workers.

GJMR-H Classification: LCC: RD701-811



Strictly as per the compliance and regulations of:



© 2023. Bianca G D Oliveira, Iago O Braga, Leonardo C Borduchi, Pedro A M O Siqueira & Renan C Peccinelli. This research/review article is distributed under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0). You must give appropriate credit to authors and reference this article if parts of the article are reproduced in any manner. Applicable licensing terms are at https://creativecommons.org/licenses/by-nc-nd/4.0/.

# Impact and Prevalence of Musculoskeletal Injuries due to Accident at Work in Brazil, 2015-2020

Prevalência E Impacto Das Lesões Osteomusculares Por Acidente De Trabalho No Brasil, 2015 - 2020

Lesões Osteomusculares Por Acidente De Trabalho No Brasil

Bianca G D Oliveira a, Iago O Braga , Leonardo C Borduchi , Pedro A M O Sigueira C & Renan C Peccinelli \*

Abstract- Goal: Recognize the relevance of hospitalizations for musculoskeletal injuries due to accidents at work in Brazil.

Methods: It is a retrospective epidemiological study, qualitative/quantitative with secondary data analysis and cross-sectional typology in the public databases of the Ministry of Labor and Social Security, delivered by the Federal Government, Descriptors in health sciences: musculoskeletal injuries; accident at work; injuries due to accidents at work; workers: absenteeism.

Results: In Brazil, during 2015 to 2020, there is evidence of a high number of accidents at work resulting in 65.9% of musculoskeletal injuries. The most affected age was between 30-39 years, the male gender corresponded to 63.3% of the cases, upper limb injuries were the most prevalent, and 36.1 billion were spent in aids.

Conclusion: Musculoskeletal injuries due to accidents at work have significant socioeconomic impacts, making essential the introduction of targeted social policies.

Keywords: musculoskeletal injuries; accidents at work; injuries due to accident at work; workers.

#### I. Introduction

he International Labor Organization (ILO) stipulates that approximately 317 million accidents at work occur annually in the world, with around 321,000 deaths as a result of these accidents. Additionally, an average of 2.02 million deaths are caused by workrelated diseases.1

Accident at work is configured as bodily injury or functional disorder that causes death, loss or reduction, permanent or temporary, of work capacity, in

Corresponding Author a: Acadêmico de Medicina pela Universidade Salvador, Salvador, BA, Brasil. e-mail: bianca.oliveira43@gmail.com Author σ: Acadêmico de Medicina pela Faculdade Santo Agostinho, Vitória da Conquista, BA, Brasil. e-mail: iagobraga2700@gmail.com Author p: Residência médica pela UNIFIPA (2019-2022), SP, Brasil. e-mail: leoborduchi@gmail.com

Author @: Residência médica em Ortopedia e Traumatologia pelo Hospital Regional Antônio Dias, MG, Brasil (2020-2023).

e-mail: siqueiramed@hotmail.com

Author ¥: Residência médica pela UNIFIPA (2019-2022), SP, Brasil. e-mail: renan rcplg@hotmail.com

the exercise of work when in service for the company or insured persons, described in the Brazilian law 8213/91, article 19.2

In Brazil, it manifests itself with a high rate of occurrences. On September 22, 1977, the Ministry of Labor created the law 6514, which guarantees safety and occupational medicine. The Brazilian labor legislation (Consolidação as Leis do Trabalho - CLT), modifies part-time work and extends the time limit, in addition to facilitating the extension of the food benefit program (Programa de Alimentação do Trabalhador -PAT).3

In 2002, a network of assistance and surveillance services in workers' health (Rede Nacional de Atenção Integral à Saúde do Trabalhador - RENAST) was created in Brazil, which disseminates actions aimed at health integrated into the services of the Brazilian public health system (Sistema Único de Saúde - SUS), through specialized reference centers in workers' health (Centros de Referência em Saúde do Trabalhador -CEREST). It is a national network with the goal of programming assistance, surveillance, prevention and health promotion actions. In the national scene, from 2009 to 2018, 752.777 cases of serious and fatal accidents at work were registered in the notification system (Sistema de Informação de Agravos de Notificação - Sinan), in which Brazil ranks 4th in the world with death outcome.4

Musculoskeletal injuries triggered by work have terms such as repetitive strain injuries (RSI) and workrelated musculoskeletal disorders (WMSD), adopted by the Brazilian Ministry of Health and Ministry of Social Security (MPAS). In addition to direct, indirect or commuting to work trauma.5 The occurrence of work accidents has a direct relationship with the age group, as the economically active population is affected, since the injury may or may not be repairable, fostering temporary absolute or partial disabilities, or permanent for work. And when definitive, it can be partial, absolute for the usual work or absolute for any and all types of work.6

Absolute Temporary Professional Incapacity (ITPA) refers to the impediment to perform the usual professional activity including hospitalization and absolute rest without prejudice to the specificities of the profession concerned, defined by days. Partial Temporary Occupational Disability (ITPP) corresponds to a reduction of at least 50% of the functional capacity for the usual performance, even with limitations. It is translated into number of days and disability rates, using clinical records, physical examination, history and the requirements of their usual profession, or after 18 consecutive months of ITPA. Permanent disability is conceptualized as loss of work capacity due to functional interruption of one or more systems, with different degrees determined by sequelae, in a threedimensional manner.4

The habits seen during operational activities stand out, such as: repetitive movements, prolonged working hours and the absence of periodic breaks, productivity requirements, high muscle strength performance, poor posture adequacy, overloaded body segments and a higher degree of demand. Besides intense pace of work, stressful environment of charges, finding inadequate equipment and instruments of work, exposing the patient inappropriately to the risk of iniurv.7,8,9

#### H. Methods

The present scientific work is a retrospective clinical investigation, through a qualitative and quantitative epidemiological study, whose data were obtained through consultations in the databases of the Brazilian Ministry of Labor and Social Security, made available by the Federal Government, at the electronic address (https://www.gov.br/trabalho-e-previdencia/ptbr/assuntos/previdencia-social), accessed throughout the research period. As this is a public domain database, it was not necessary to submit the project to the Research Ethics Committee.

The research gathers health data and involves the category of musculoskeletal injuries caused by accidents at work, selecting the group "Anuário Estatístico de Acidentes de Trabalho - AEAT", as well as the option "Subseção C - Acidentes de trabalho segundo o CID" specifying "Brasil" and the year to be analyzed.

The platform Observatório de Segurança e Saúde no Trabalho - Smartlab, available at the electronic address (https://smartlabbr.org/sst), was used to survey public spending on sickness and accident benefits for occupational accidents during the study period. The groups "despesa - INSS", "prevalência dos afastamentos" and "frequência dos afastamentos" were selected.

The study sample was work accidents involving musculoskeletal injuries in Brazil during the years 2015 to 2020. Traumatic mechanisms that had no correlation with musculoskeletal injuries were not included in the sample. Microsoft Excel 2019 was used to analyze and prepare the data and graphs. The search period in the databases used was from February 1, 2022 and June 20, 2022, with 30 references used.

The inclusion criteria used in the search for articles in the databases searched were: occupational accidents associated with orthopedic injuries; works related to the costs involved in these occurrences; repercussions after occupational traumas; safety in the work environment; articles whose reading of titles and abstracts related to the theme proposed by the study; articles in Portuguese, English and Spanish.

Regarding the exclusion criteria, articles that were not related to the research topic were removed: non-orthopedic work traumas; articles whose language differed from those mentioned above: reading titles and abstracts of scientific papers that had no association with the main objectives of this study.

To build the theoretical foundation, articles available on the website of the Brazilian Ministry of Labor and Social Security were used, as well as articles selected from the SciELO, PubMed and LILACS databases. The terms "lesões osteomusculares", "acidente de trabalho", "lesões por acidente de trabalho", "trabalhador" e "absenteísmo" were chosen from the platform Descritores em Ciências da Saúde at the electronic address <a href="https://decs.bvsalud.org/">https://decs.bvsalud.org/>.

#### III. Results

Occupational accidents registered during the years 2015 to 2020 comprised 3.384.319 cases. Of this number, 2.232.945 (65.9%) were found to have musculoskeletal injuries due to accidents at work (Picture 1).10

The most affected age group was 30 - 39 years with 31.5% of the registered cases, followed by 20 - 29 vears (28.6%), 40 - 49 years (22.1%) and lastly, 50 years or more with 15.3% of the records. In relation to sex, the total number of men affected in the study period is 2.244.887 (63.3%), being more commonly involved in this context, with a lower manifestation in women with 1.137.911 (33.6%) cases. 1.521 registrations did not have gender as a notified variable. It is evident the disparity of involvement between genders in relation to accidents at work, being in absolute values a number of 1.106.976 and in percentage amount corresponding to 29.7%.10

Upper limb injuries were the most prevalent with 53.2% of musculoskeletal trauma cases, lower limb injuries comprised 34.2%. In third place was the spine, with 8.5% of records. Lastly, synovitis and tenosynovitis accounted for 1.3% of injuries. Affections involving unspecified parts comprised 2.6% of cases.<sup>10</sup>

We can specifically highlight the main musculoskeletal injuries, being more recurrent in the upper limb the injuries and/or fractures of the wrist and hand, corresponding to 23.8% of the injuries analyzed. This was followed by lower limb injuries, particularly dislocations, sprains and strains of the joints and ligaments of the ankle and foot (6.9%) and fractures of the leg including the ankle (5%). Concerning spinal disorders, dorsalgia is the main symptom (5.5%), and the main associated injury is intervertebral disc dysfunction corresponding to 1% of reports.<sup>10</sup>

When it comes to the classification of occupational accidents, 61.6% of the cases were typical accidents, 18% were commuting accidents and 1.7% were considered work-related diseases. Of the cases analyzed, 414.919 (18.6%) did not have a register on the Brazilian social insurance institute (INSS) by the corresponding document (Comunicação de Acidentes do Trabalho - CAT) (Table 1).10

During the 6 years of analysis, expenditures on occupational accidents were accounted for, with 14.3 billion reais paid through sickness benefits and 21.8 billion reais for accident benefits (Picture 2).11

Of the 1.250,086 accident social insurance benefits granted during the period, 73,5% were for victims of musculoskeletal injuries due to accidents at work, of which 13,4% were for patients suffering from wrist and hand fractures, which was the main cause for granting the aid (Table 2).11

During the period from 2015 to 2020 there was an accumulation of 227.4 thousand days away from the work environment, with a financial contribution being granted to the victims through sickness benefits for accidents that occurred in the labor environment. Configuring high costs generated by this situation, mainly by the decrease in productivity due to worker absenteeism, and thus generating losses to the sector in which it is employed. Moreover, health expenditures are directed to develop actions aimed at resolving the problems in order to guarantee the cure, damage control, rehabilitation and reintegration of this worker in his work environment.11

#### IV. Discussion

Accidents at work are classified as typical, commuting and work-related diseases, caused by recklessness, malpractice and/or negligence. The malpractice consists in the execution of an action, without really mastering it, which may cause civil and criminal liability among those involved, in case of any type of accident. Recklessness is to act without caution, with the due knowledge, however, leading to casualty and negligence results from voluntary omission. 12 Causal agents are divided into large groups: chemical, physical, biological, ergonomic and commuting/traffic risks.13

Typical accidents are those arising from the professional activity performed by the injured worker and commuting accidents occur between the insured person's home and place of work. Work-related illnesses include work-related pathologies, those triggered by the specific performance of a particular work activity. Regardless of the nature of the accident, it is of great importance that all accidents are registered with the INSS through the CAT so that the worker has access to all his rights determined by law.14

Physical occupational risks mainly include falls, either from their own height or from altitude. They are associated with inadequate posture, prolonged working hours, stress, inadequate lighting, anxiety and other psychiatric disorders, fatigue and defective individual and collective protection equipment or the non-use of these safety devices. A Standard Regulatory number 35 was created by the Brazilian Federal Government, specifically by the Ministry of Labor and Employment, in order to stipulate mechanisms for managing the safety and health of workers for all work activities developed at height with risk of falling. 15

Chemical incidents are linked to production/consumption of substances and occur as an emission, fire or explosion involving one or more dangerous chemicals, not only in the industrial production process, but in transportation and storage. The potential for severity and extent of their effects include teratogenesis, carcinogenesis, mutagenesis and damage to specific target organs. 16,17

Explosions are the events with the highest frequency of large numbers of immediate deaths, caused by burns, trauma and/or suffocation by the gasses released after the explosions. 18 In fires, besides the radiation of heat and additional explosions, there are also the risks of combustion itself triggering the emission of multiple gasses and toxic smokes that generate dispersion and can reach large extensions and a greater number of people, constituting the predominant form of environmental and occupational exposures.<sup>19</sup> The prevention of these accidents is done through the control of work equipment associated with the functions performed, monitoring and maintenance. Also the use of all personal protective equipment (PPE) and adequate professional training of the worker.

Trauma to the hand and/or wrist is the leading cause of musculoskeletal injuries in Brazil, as a result of negligence in the use of protective materials, such as gloves and safety sleeves. This equipment not only protects against cutting and piercing (mechanical) agents, but also abrasive, excoriating and thermal agents. The good state of use, the appropriate size for each professional and the guidelines on the correct use of the equipment are of paramount importance for its effectiveness. 20

Biological risk occurs due to environmental factors and working conditions, in addition to

characteristics such as time of service, training and professional category. Thus, these include contact with blood and secretions, microorganisms such as viruses, fungi, protozoans and bacteria, handling of sharps, among other associated items.<sup>21</sup> They involve workers who carry out work activities related to health sciences, which present continuous exposure to the contagion of diseases. Other labor classes also exposed are: garbage collection, general services, sterilization, rescue and/or security operations, among others.<sup>22</sup>

Ergonomics is a science that studies and applies standards for better work performance with machines, equipment and working conditions. The goal is to provide an environment compatible with the required needs, reducing risks, whether physical, emotional, mental and/or structural. Thus, it is necessary to recognize the profile of the employees and the type of activity in question, including posture, organizational management, cognitive assessment process and accessibility. 23

Synovitis and tenosynovitis accounted for 56.952 cases of occupational diseases. They were mainly associated with females, sewage workers, radio and TV activity, manufacturing of computer equipment and electronic products, and financial service activities.<sup>24</sup> Edema and hyperemia associated with pain caused by inflammation can result in limitation of the affected joint movement, which leads to compromised execution of certain activities, such as exercising work activity.

Thus, the performance of the ergonomic analysis of work (AET) is essential to understand the real needs of professionals and the company, allowing to identify, minimize or even extinguish the existing ergonomic risks. It is necessary to correct and evaluate posture in work activities, handling of materials, execution of movements, projection of positions of the field of action, communication, group work, network organization, time of performance, quality management; required mental load, decision-making processes, stress, and possible musculoskeletal disorders, to obtain the best human performance.<sup>23</sup> Investing in ergonomics provides more safety, health and quality of life for the worker, as well as better results and productivity for the company.

Back pain (Brazilian ICD M54) is the most common symptom of accidents at work and is related to spinal disorders. It is the second leading cause of permanent absence from work, as well as being responsible for decreased performance, fatigue and even temporary absences for full recovery. problems are linked to body overload in high-impact occupations, repetitive execution and/or weight loading on the axial skeleton and improper sitting posture. Some professions are more related to this type of injury, such as machine operators, repair, maintenance, production and industrial services. 10

Body overload secondary to inadequate sitting posture is due to the fact that the seat is usually higher than it should be, which causes pain as a result of hip compression and improper support for the ischial tuberosities (because of the adjustment). Knee and thigh complaints result from prolonged contraction of the lower limb muscles combined with difficulty in venous return. The blood flow can be strangled when it rests on the edge of the seat, causing blood capillaries to bulge into the epidermis, as well as numbness in the lower limbs and even the appearance of varicose veins. Investment in ergonomic seating is therefore essential to preserve workers' health.<sup>25</sup>

Lastly, commuting accidents are those that occur between home and work, accounting for 403.387 cases. 10 Most of these injuries are caused by motorcycles, with a higher number of leg fractures (Brazilian ICD S82) and consequent losses capable of generating disability, death, absence from work and prolonged hospitalization, configuring a socioeconomic impact. In addition to causing other types of trauma, such as abrasions, bruises, contusions, neurological and/or spinal cord injuries, brain injuries and lacerations.

It reflects, so, the need to apply traffic and safety education, encouraging the use of protection equipment (helmets and seat belts), awareness about the consumption of alcohol and other drugs associated with driving, based on the Brazilian Ordinance No. 1,820, of August 13, 2009, which provides for the rights and duties of health users under current legislation. And everyone has the right of access to goods and services ordered and organized to ensure the promotion, prevention, protection, treatment and recovery of health. Companies and/or insurers are required to comply with specific occupational health and safety standards, made through specific reports in accordance with national labor law. These are designed to ensure periodic medical examinations to monitor work capacity and health, notification of accidents to the INSS, prevent, identify and treat risks. It also provides adequate assistance and treatment to the individual who has suffered an injury.

Examples of the above reports are: risk management program (programa de gerenciamento de risco - PGR), technical report on working conditions (laudo técnico das condições de trabalho - LTCAT) and occupational health medical program (programa médico de saúde ocupacional - PCMSO). The PGR goal is to identify situations that are harmful to people, institutions and the environment at an early stage. The main objective is to establish a set of measures to prevent, identify and reduce the occurrence of unwanted events, which may lead to negative effects of physical or psychological aspect, in order to establish immediate measures, thus minimizing the damage.<sup>27</sup>

The technical report of working conditions (LTCAT) has as objective to identify, analyze and record the harmful agents present in the work environment, in addition to concluding if these can produce unhealthiness or special retirement rights for employees. The environmental assessment where the work activities are performed by the company's employees are aspects of analyzed for unhealthiness and dangerousness. The main objectives the occupational health medical program (PCMSO) are the prevention, monitoring and early identification of workrelated health problems, and promoting the preservation of workers' health in order to provide maximum comfort, safety and productivity efficiently in the workplace.<sup>28</sup>

Accidents at work have repercussions on workers, generating costs for the State and the employer. In more serious situations, the INSS is responsible for paying benefits such as accident sickness benefit, accident benefit, professional and personal habilitation and rehabilitation, disability retirement and death pension. In these cases, the employer is responsible for resolving the legal, economic, social and social security situations; it also has to bear the costs in cases of less serious accidents, since it is responsible for paying the salary of workers on sick leave up to the fifteenth day since the work accident occurred. These expenses negatively impact several sectors, generating high costs for the health and labor field, being associated with the disabilities generated by the injuries that produce temporary and / or permanent disabilities depending on the degree of involvement. being added to this, the loss of productivity due to the days of absenteeism in the work environment. 29

The demand for medical care after occupational accidents is important and should be done as soon as possible, so that treatment is instituted in an appropriate time and manner, however, access to care is compromised, due to lack of demand, difficulties in scheduling appointments in public health services and / or inaccessibility to financing for private care or medical insurance. In addition to these factors, the quality of life of these patients is compromised, since after work accidents the psychological damage and functional limitations have repercussions on the well-being and balanced social life, compromising the reintegration of these individuals in the social and labor environment.<sup>30</sup>

#### Conclusion

Given the facts above, the great socioeconomic relevance of the impacts of work accidents with orthopedic consequences is evident. Expenses for prevention, treatment, diagnosis, sequelae and rehabilitation services are high. This reinforces the need for the application of public policies directed to the inspection and reduction of risks, criminal action for companies that do not comply with the rules and

adequate regulation and demand by workers of their applicability and enforcement rights. occupational safety laws is the duty of the State, since maintaining the health of the individual is a constitutional right.

Risk exposure increases the chance of developing a series of health problems, such as infectious diseases, loss of temporary or permanent functional capacity, disability, job insecurity, anxiety, Post-Traumatic Stress Disorder (PTSD), suicide and/or death. Thus, these disorders compromise active participation in the labor market and their social interaction, bringing with them a deficit in the economy and distancing from society.

Financiamento Não se aplica. Conflitos De Interesse Nada a declarar Agradecimento Não se aplica.

# This page is intentionally left blank



# GLOBAL JOURNAL OF MEDICAL RESEARCH: H Orthopedic and Musculoskeletal System

Volume 23 Issue 2 Version 1.0 Year 2023

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals Inc. (USA)

Online ISSN: 2249-4618 & Print ISSN: 0975-5888

# Intraosseous Synovial Cysts of the Scaphoid Bone: A Rare Case of Fracture and Surgical Management

By Marouane Dinia, Yassine Ben Bouzid, Othmane Ibnoussina, Rida-Allah Bassir, Monsef Boufettal, Jalal Mekkaoui, Mohamed Kharmaz, Moulay Omar Lamrani & Mohamed Saleh Berrada

Ibn Sina University

Abstract- Intraosseous synovial cysts (ISCs) are rare occurrences characterized by synovial proliferation within the bone. This article presents a case report of a 19-year-old patient with a carpal scaphoid bone fracture and an incidentally detected intraosseous cyst. The patient underwent surgical treatment involving careful curettage of the cystic cavity, addition of a spongy bone graft, and fracture stabilization. The histopathological examination confirmed the presence of an intraosseous synovial cyst. The patient achieved a satisfactory functional outcome, with early consolidation and resumption of daily activities. The study emphasizes the importance of accurate diagnosis and appropriate surgical management, highlighting the favorable prognosis and rarity of recurrences in intraosseous synovial cysts of the scaphoid bone.

Keywords: intraosseous synovial cysts, scaphoid bone, fracture surgical management, histopathological examination, radiography and computed tomography.

GJMR-H Classification: LCC: RD731



Strictly as per the compliance and regulations of:



© 2023. Marouane Dinia, Yassine Ben Bouzid, Othmane Ibnoussina, Rida-Allah Bassir, Monsef Boufettal, Jalal Mekkaoui, Mohamed Kharmaz, Moulay Omar Lamrani & Mohamed Saleh Berrada. This research/review article is distributed under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0). You must give appropriate credit to authors and reference this article if parts of the article are reproduced in any manner. Applicable licensing terms are at https://creativecommons.org/licenses/by-nc-nd/4.0/.

# Intraosseous Synovial Cysts of the Scaphoid Bone: A Rare Case of Fracture and Surgical Management

Marouane Dinia α, Yassine Ben Bouzid σ, Othmane Ibnoussina ρ, Rida-Allah Bassir α, Monsef Boufettal ¥, Jalal Mekkaoui §, Mohamed Kharmaz x, Moulay Omar Lamrani & Mohamed Saleh Berrada e

Abstract- Intraosseous synovial cysts (ISCs) are rare occurrences characterized by synovial proliferation within the bone. This article presents a case report of a 19-year-old patient with a carpal scaphoid bone fracture and an incidentally detected intraosseous cyst. The patient underwent surgical treatment involving careful curettage of the cystic cavity, addition of a spongy bone graft, and fracture stabilization. The histopathological examination confirmed the presence of an intraosseous synovial cyst. The patient achieved a satisfactory functional outcome, with early consolidation and resumption of daily activities. The study emphasizes the importance of accurate diagnosis and appropriate surgical management, highlighting the favorable prognosis and rarity of recurrences in intraosseous synovial cysts of the scaphoid bone. Radiography and computed tomography are valuable tools in confirming the diagnosis and guiding treatment. Long-term monitoring is essential to detect any potential recurrences, and further research is needed to improve understanding of the pathophysiology and treatment options for these cysts.

Keywords: intraosseous synovial cysts, scaphoid bone, suraical management, histopathological examination, radiography and computed tomography.

#### I. Introduction

ntraosseous synovial cysts (ISCs) are characterized by the presence of a specific radiological image and histology indicating synovial proliferation within the bone (1). Intraosseous synovial cysts of the scaphoid bone are an extremely rare cause of wrist and hand pain. The localization of this cyst specifically in the scaphoid bone is sparsely documented in the literature. This article presents a case report of a 19-year-old patient who experienced a carpal scaphoid bone fracture following a sports-related accident. Additionally, during the evaluation, an intraosseous cyst was incidentally detected.

#### CASE REPORT II.

It is about a 19-year-old patient with no notable medical history. He came to the emergency department of CHU Avicenne after sustaining an injury to his left upper limb during a sports accident, with his hand landing in hyperextension. During the interview, he mentioned having experienced previous injuries and suffering from chronic wrist pain for the past 3 months, which is relieved by symptomatic treatment with painkillers and non-steroidal anti-inflammatory drugs. Upon clinical examination, the patient exhibited slight limitation of wrist function, accompanied by swelling and filling of the anatomical snuffbox. Palpation elicited pain during thumb retroversion and wrist pronation, as well as tenderness upon pressure in the anatomical snuffbox.

The standard radiographic assessment revealed a scaphoid fracture with an underlying gap, suggesting the possibility of a cyst or pseudarthrosis of the scaphoid (figure 1). The wrist CT scan confirmed the scaphoid fracture with a probable intraosseous cyst (figure 2).



Figure 1: The standard X-ray of the wrist, in frontal and oblique views, revealed a displaced fracture of the scaphoid on a lacunar image located in the middle portion of the scaphoid.

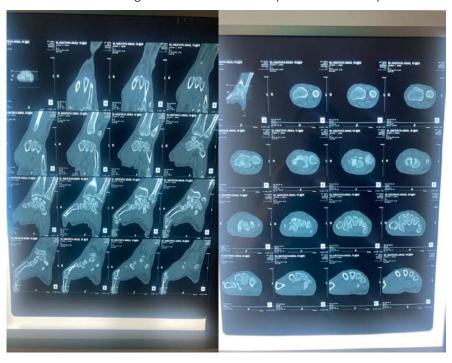


Figure 2: The computed tomography (CT) scan confirmed the scaphoid fracture and the localized and nonaggressive nature of the cyst.

The patient underwent surgery via an anterior approach. Careful curettage of the cavity was performed after distraction of the fracture site. The bone defect was filled with autologous cancellous graft harvested from the lower metaphysis of the ipsilateral radius. Fracture stabilization was achieved with 2 pins (figure 3). The histopathological examination of the curettage specimen showed that the cyst wall was lined with flattened fibroblastic cells resembling synovial cells, without true epithelial appearance. There mucoid was no degeneration or myxoid transformation.

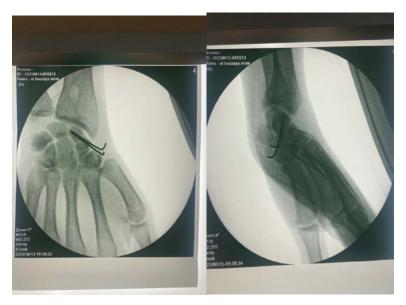


Figure 3: Postoperative radiograph after curettage, grafting, and stabilization with two pins.

The patient was immobilized for 2 months in a resin splint. After this period, the hardware was removed under local anesthesia. Several sessions of functional rehabilitation were initiated after plaster removal. At the latest follow-up at 6 months after treatment, the patient had regained good wrist function, with painlessness and resumption of leisure and professional activities.

#### III. DISCUSSION

Cysts of the carpal scaphoid are uncommon in daily practice. Most often, they are either mucoid cysts or synovial cysts. These cysts typically develop at an advanced age, with an average age of 41 and 47 years in the two largest series [2].

The pathophysiology of bone cysts remains controversial, with two main opposing hypotheses. Some authors argue that the bone cyst forms through synovial inclusion from the outside to the inside. Others suggest synovial metaplasia originating within the bone itself, potentially influenced by local microtrauma or ischemic phenomena [3,4].

Intraosseous synovial cysts can present in two distinct ways: they may not exhibit any symptoms or they can result in moderate pain that typically does not respond well to painkillers. Other clinical manifestations may arise due to complications associated with intraosseous synovial cysts [1, 5, 6], such as wrist swelling caused by the rupture of the cysts and the spread of its contents within the joint. Moreover, a pathological fracture can occur, exacerbating the pain [1,5].

From a radiological perspective, typical images show osteolytic lesions of a few millimeters in diameter, either solitary or multilobulated, accompanied by a peripheral rim of osteosclerosis [7]. This description corresponds to the lesion observed on our patient's radiographs, along with a discontinuity at the scaphoid neck, indicating a pathological fracture due to weakening of the scaphoid neck. Computed tomography, whether performed with or without contrast agent injection, allows for precise determination of the nature of the intracystic contents and any cortical involvement [1,7]. It also helps establish a surgical protocol by specifying the most appropriate approach, including the preferred surgical access route.

The only patients requiring surgical intervention are those who experience persistent pain or swelling of soft tissues, as well as those with a pathological fracture, as in our case. Additionally, preventive intervention may be considered for lesions at risk of fracture due to their location (scaphoid neck) and volume (large geode with significant cortical thinning) [8]. The surgical procedure involves a thorough excision by curetting the contents of the cystic cavity as completely as possible. A spongy bone graft is systematically added, along with osteosynthesis if necessary, as recommended by most authors [9,10]. The functional prognosis is generally favorable, and recurrences are exceptional (5). In our case, we observed an early consolidation (55 days) compared to the usual timeframe of 3 months, with a highly satisfactory functional outcome.

#### IV. Conclusion

The functional prognosis of intraosseous synovial cysts of the scaphoid bone is generally favorable, with exceptional recurrences. In our case, we observed an early consolidation occurring in just 55 days compared to the usual timeframe of 3 months, with a highly satisfactory functional outcome. This case report highlights the importance of accurate diagnosis and appropriate surgical management for patients with intraosseous synovial cysts of the scaphoid bone. Careful curettage of the cystic cavity and the systematic addition of a spongy bone graft, along with possible osteosynthesis, were recommended to ensure complete excision and optimal consolidation. radiography and computed tomography were valuable tools in confirming the diagnosis and guiding the surgical treatment. Through appropriate management, the patient was able to regain satisfactory wrist function and resume daily activities. However, long-term monitoring is necessary to detect any potential recurrences. This study also emphasizes the importance of ongoing research and documentation of intraosseous synovial cysts of the scaphoid bone to improve understanding of their pathophysiology and treatment options.

Ethics approval and consent to participate

Ethical approval was not sought. Written consent was obtained from the patients.

Availability of data and materials

The datasets used and analysed during the study are available from the corresponding author.

Declaration of conflicting interest

The authors declare that there is no conflict of interest.

#### **Fundina**

This research received no specific grant from any funding agency in the public, commercial, or not-forprofit sectors.

Authors contributions

All authors Have read and approved the final manuscript.

## References Références Referencias

- Chantelot C, Laffargue P, Masmejean M, Peltier B, Barouk P. Fontaine C. Fracture du scaphoide carpien sur kyste intraosseux. Ann Chir Main 1998; 17: 255—8.
- 2. Logan SE, Gilula LA, Kyriakos M. Bilateral scaphoid ganglion cysts in an adolescent. J Hand Surg Am. 1992 May; 17(3): 490-5.
- Masmejean E, Chantelot C, Alnot J, Hayem G. Primary carpal bone defect. Rev ChirOrthopReparatriceAppar Mot. 2000 Feb; 86(1): 80-6.
- Yakoubi M, Meziani N, Yahia Cherif M, Zemmouri A, Benbakouche R. Pathological fracture of the carpal scaphoid (intra-osseous synovial cyst) Clinical and therapeutic aspect: case report. Chir Main. 2009 Feb; 28(1): 37-41.
- Logan SE, Gilula LA, Kyriakos M. Bilateral scaphoid ganglion cysts in an adolescent. J Hand Surg Am 1992: 17: 490—5.
- 6. Uriburu IJF, Levy VD. Intraosseous ganglia of the scaphoid and lunate bones: report of 15 cases in 13 patients. J Hand Surg Am 1999; 24(A): 508—15.

- Masmejean E, Chantelot C, Alnot JY, Hayem G. Géodesdites primitives du carpe. Rev ChirOrthop2000; 86: 80-6.
- Mestdagh H, Butruille Y, Maynou C, Delobelle JM, Lecomte-Houcke M. Les kystes intraosseux du carpe. À propos de trois cas. Ann Chir Main Membr Super 1993;12: 275-80.
- 9. Forstner H. Intra-osseous ganglion in the area of the wrist. Chirurgie1992; 63: 977-9.
- 10. Waizenegger M. Intraosseous ganglia of carpal bones. J Hand Surg [Br] 1993; 18: 350-5.



# Global Journal of Medical Research: H Orthopedic and Musculoskeletal System

Volume 23 Issue 2 Version 1.0 Year 2023

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals Inc. (USA)

Online ISSN: 2249-4618 & Print ISSN: 0975-5888

# Clinical Characteristics of Children with Spinal Deformities at Initial Visit to the Clinic

By Chernyshova I.N. & Lutsenko E.V.

Summary- Analysis of the archival material of the Ukrainian Research Institute of Prosthetics made it possible to determine the structure of the primary referral of children with spinal deformities to the clinic over the past 10 years. The following factors were assessed: age, gender, type of deformity, magnitude of deformity (Cobb) and bone age (Risser). These data determine the strategy and tactics of treatment and form the basis of its prognosis. At the same time, the timeliness of the child's parents contacting a specialist is significantly influenced by a number of factors that depend on the organization of healthcare in the country. The generalized material made it possible to create a "clinical portrait" of a patient who sought help from a specialist for the first time. This is a female child aged 11 - 13 years with unfinished bone growth (Risser test 2 - 3), right-sided thoracic spinal deformity of the 2nd degree. The results obtained do not contradict literature sources and indicate the wide potential of conservative treatment in achieving positive results.

Keywords: scoliosis, initial treatment, clinical characteristics.

GJMR-H Classification: NLM Code: WS 420



Strictly as per the compliance and regulations of:



© 2023. Chernyshova I.N. & Lutsenko E.V. This research/review article is distributed under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0). You must give appropriate credit to authors and reference this article if parts of the article are reproduced in any manner. Applicable licensing terms are at https://creativecommons.org/licenses/by-nc-nd/4.0/.

# Clinical Characteristics of Children with Spinal Deformities at Initial Visit to the Clinic

Chernyshova I.N. <sup>a</sup> & Lutsenko E.V. <sup>o</sup>

Summary- Analysis of the archival material of the Ukrainian Research Institute of Prosthetics made it possible to determine the structure of the primary referral of children with spinal deformities to the clinic over the past 10 years. The following factors were assessed: age, gender, type of deformity, magnitude of deformity (Cobb) and bone age (Risser). These data determine the strategy and tactics of treatment and form the basis of its prognosis. At the same time, the timeliness of the child's parents contacting a specialist is significantly influenced by a number of factors that depend on the organization of healthcare in the country. The generalized material made it possible to create a "clinical portrait" of a patient who sought help from a specialist for the first time. This is a female child aged 11 - 13 years with unfinished bone growth (Risser test 2 - 3), right-sided thoracic spinal deformity of the 2nd degree. The results obtained do not contradict literature sources and indicate the wide potential of conservative treatment in achieving positive results.

Keywords: scoliosis, initial treatment, clinical characteristics.

Резюме-Анализ архивного материала УкрНИИ протезирования позволил определить структуру обращаемости детей c деформациями позвоночника в клинику запоследние 10 лет. Оценивались: возраст, пол, вид деформации, величина деформации (Cobb) и костный возраст (Risser). Эти данные определяютстратегию и тактику лечения, лежат в основе его прогно в .В то же время на своевременность обращения родителей ребенка к специалисту оказывают существенное влияние и ряд факторов, зависящих от организации здравоохранения в стране.

Обобщенный материал позволил создать «клинический портрет» пациента, впервые обратившегося за помощью к специалисту. Это ребенок женского пола в возрасте 11 – 13 лет с неоконченным костным ростом (тест Risser 2 - 3), правосторонней грудной деформацией позвоночника II степени. Полученные результаты не противоречат литературным источникам, свидетельствуют о широких потенциальных возможностях консервативного лечения в достижении позитивных результатов.

*Ключев ые слова: сколиоз, первичное обращение, клиническая характеристика.* 

еформации позвоночника в детском возрасте представляют серьезную проблему, учитывая их прогрессирующий характер и большой риск инвалидизации ребенка. По данным Центра медицинской статистики Минздрава Украины, количество детей больных сколиозом в течение последних 5 лет остается стабильным и составляет примерно 1,4-1,5% детского населения, прошедшего медосмотр. Также неизменным остается процент детей с инвалидностью вследствие деформации позвоночника — 0,9% от всего детского населения [1].Необходимым условием эффективного применения средств коррекции ипрофилактики прогрессирования деформацииявляется раннее обращение за помощью к специалистуи регулярный контрольныйосмотр детей в процессе лечения [5,4].

*Цель работы*: проанализировать структуру первичной обращаемости детей с деформациями позвоночника.

#### Материалы и способы

Для проведения анализа использованы архивные материалы (форма 003\о "Медицинская карта стационарного больного") Украинского научно-исследовательского института протезирования, протезостроения и восстановления трудоспособности (УкрНИИПП) за последние 10 лет.

В пер від с 2 011 по 2 0 2 гізды в клинику УкрНИИПП обратились за помощью 764 ребенка с деформациями позвоночника в возр'ясте от 0 до 17 лет. Нами анализировались: пол, возраст первичного обращения, вид деформации, индекс Risser иугол Соbb, как основные критерии оценки степени тяжести деформации и прогноза эффективности консервативного лечения [3, 5, 6].

Обработка данных проводилась с помощью пакета статистических программ PSPP. Использовались методы описательной статистики, оценка частотного распределения и сопряженности переменных.

#### II. Результаты и обсуждение

Всего было проанализировано 764 истории болезни. По половой принадлежности обследованный контингент распределился следующим образом: 718 (94%) девочек, 46 (6%) мальчиков. Средний возраст первичного обращения к специалисту - 12,4±8,5 года, что соответствует литературным данным [2]. Наибольшую группу составили дети в возрасте 11 - 13 лет (период интенсивного роста), несколько меньше было детей смежного возраста (6 – 1 0 лет и 1 4 лет) (таблица 1).

Author a: Deputy Director of the Ukrainian Research Institute of Prosthetics, Prosthetic Construction and Rehabilitation, Candidate of Medical Sciences. Sciences. e-mail: iraortoped@gmail.com

Author  $\sigma$ : Senior researcher at the Ukrainian Research Institute of Prosthetics, Prosthetic Construction and Rehabilitation, Candidate of Medical Sciences. Sciences. e-mail: evlook@ukr.net

Возраст(лет)	Количество пациентов	%
0-5	31	4
6-10	171	22,4
11-13	393	51,6
14	167	21,8
15-18	2	0,2
Всего	764	100

Таблица 1: Распределение пациентов при первичном обращении по возрасту.

Кроме паспортного возраста, определялся костный возраст ребенка (индекс Risser), вид и величина деформации методом рентгенографии позвоночника стоя в переднезадней проекции.

Данные исследования показали, что более половины детей (311, 59 %), из впервые обратившихся в клинику института, имели индекс Risser I - IV степени. Это были дети в активном периоде роста, который является наиболее благоприятным для эффективного проведения консервативных методов лечения (лечебная гимнастика, корсет). Однако, наличие низкого индекса Risserтакже свидетельствует о высокой вероятности прогрессировании деформации - чем ниже индекс, тем вероятность прогрессирования сколиоза выше, по

авторов (2, 3, 4). Поэтому данным c предупреждения прогрессирования и возможной коррекции деформации этим детям были назначены интенсивные курсы реабилитации и корсетотерапия.

Примерно четверть детей (132, 25%) при первичном обращении имели индекс Risser V. Целью консервативного лечения этой группы детей было укрепление мышечного корсета для профилактики прогрессирования деформации путем применения методов физической реабилитации.

Распределение пациентов по возрасту, виду и величине деформации позвоночника представлено в таблице 2.

Таблица 2: Распределение пациентов при первичном обращении по возрасту, величине и виду деформаций позвоночника

Сколиоз	Количество пациентов	Среднее значение угла Cobb		
		Грудной	Грудо- поясничный	Поясничный
Инфантильный сколиоз (до 3 лет)	9 (1,18 %)			
S-образный сколиоз	5	30,6°		31,2°
Грудной сколиоз	4	43,5°		
Ювенильный сколиоз (3-9 лет)	111(14,5 %)			
S-образный сколиоз	33	30,3°		28,7°
Грудной сколиоз	44	29,8°		
Грудопоясничный сколиоз	22		24,4°	
Поясничный сколиоз	8			17°
Неструктурный сколиоз	4	8°		
Подростковый сколиоз (10-17 лет)	573 (75%)			
S-образный сколиоз	253	33,8°		30,3°
Грудной сколиоз	155	34,4°		
Грудопоясничный сколиоз	98		26,6°	
Поясничный сколиоз	63			23,5°
Неструктурный сколиоз	4	7,7°		
Сколиоз взрослого возраста (с 18 лет)	7 (0,93 %)			
S-образный сколиоз	2	115°		105°
Грудной сколиоз	3	37,5°		
Грудопоясничный сколиоз	2		21°	
Кифоз	64 (8,39 %)		45°	•
Bcero	764			

Количество детей с инфантильным сколиозом (до 3 лет) было наименьшим (9 пациентов; 1,17%). Дети возраста при первичном обращении преимущественно имели S-образную деформацию или С-образную деформацию грудного отдела позвоночника. Средняя величина деформации соответствовала III степени  $(30^{\circ} - 43^{\circ})$ .

Ювенильный сколиоз чаше возникает в период активного роста ребенка (6-7 лет).Первичное обращении в клиникудетей этого возраста наблюдалось в 111 случаях (14,5%).Из них неструктурный (функциональный) сколиоз диагностирован у 4 пациентов. Виды деформаций при структурном сколиозе отличались разнообразием. Чаще наблюдался сколиоз грудного отдела позвоночника (44 ребенка) с величиной угла деформации, в среднем, 29,8°. По величине деформации преобладал S-образный сколиоз(33 случая) со средним углом деформации 28,7°-30,3°.

Сколиоз подросткового возраста (10-17 лет) был наиболее многочисленным и составил 573 (75%) случая. Как и при ювенильном сколиозе, в этой группе пациентов наблюдались различные виды деформации. Преобладали дети с S-образной деформацией позвоночника – 252 ребенка, средний угол деформации составлял  $30.3^{\circ}$  -  $33.8^{\circ}$ .

Сколиоз взрослых (18 – 25 лет) наблюдался у 7 (0,91%) пациентов, это был S-образный и C-образный сколиоз грудного и грудопоясничного отделов. Средняя величина деформации была очень большой 105° - 115°. Как известно, привеличине деформации более 50 градусов может наблюдаться прогрессированиена протяжениивсей жизни. Поэтому детям старше 18 лет мы проводили курсы физической реабилитации для укрепления мышечного корсета и рекомендовали оперативную коррекцию.

Деформация позвоночника в сагиттальной плоскости (кифоз) встречалась у 68 (8,9%) пациентов, это были преимущественно мальчики с болезнью Шейерман-Мау. Угол деформации в среднем со ставлял  $45^{\circ} \pm 5,6^{\circ}$ .

По степени деформации позвоночника дети при первичном обращении распределились следующим образом. У подавляющего большинства пациентов при первичном поступлении в клинику была деформация позвоночника II степени – 374 (49%) чтосоответствует литературным данным[2]. меньше по численности была группа пациентов с III деформации-275 (36%)степенью человек. Распределение пациентов по величине сколиотической деформации представлено на рисунке 1.

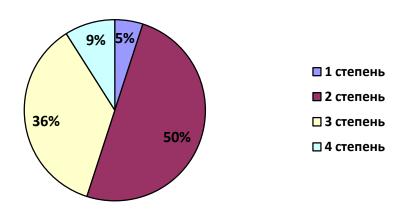


Рисунок 1: Распределение пациентов по величине деформации (Cobb)

Для определенияклинического портрета ребенка с деформацией позвоночника, впервые обращающегося за медицинской помощью, был проведен углубленный анализ групп с наиболее часто встречающейся степенью деформации (2 и 3 степень). Были выявлены особенности этих групппо возрасту (паспортному и костному), виду деформации.

Группу с II степенью деформации составили 374 человек, 325 девочек и 49 мальчиков. По виду деформации они распределились следующим образом (рисунок 2):

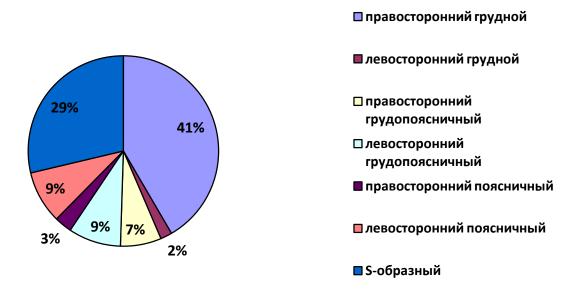


Рисунок 2: Распределениедетей с деформацией позвоночника II степени по виду деформации.

Как мы видим, в этой группепреобладали дети с правосторонним грудным сколиозом (41%).

группы Костный возрастдетей этой большинствеслучаев соответствовал индексу Риссера 3 и 2 (22% и 21% детей соответственно) (рисунок 3).

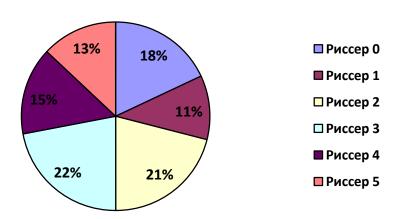


Рисунок 3: Распределение детей с деформацией позвоночника II степени по индексу Риссера.

соответствует Такой индекс возрастному промежутку детей 11-13 лет, когда начинается активный рост, возрастают школьные нагрузки и количество времени, проведенного в положении сидя. Также в этом возрасте родители еще оказывают существенное влияния на ребенка и поэтому этот контингент является наиболее многочисленным среди первичных обращений к специалисту по поводу деформации позвоночника.

Несколько иное распределение детей по виду деформации отмечалось в группе с деформацией III степени. Группу составили 275 человек, 227 девочек и 48 мальчиков. Данные распределения этой группы по виду деформации представлены на рис. 4.

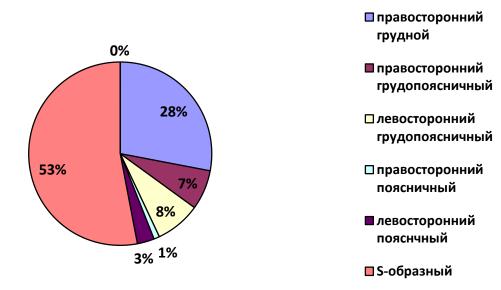


Рисунок 4: Распределение пациентов с деформацией позвоночникаIII степени по ее виду.

В S-образная группе преобладала деформация. Это можно объяснить тем, что по мере ребенка роста постепенно формируется противоискривлениев др угом отделе позвоночника, как компенсации осевой нагрузки на позвоночник.

По индексу Риссераэта группа распределилась следующим образом (рисунок 5):

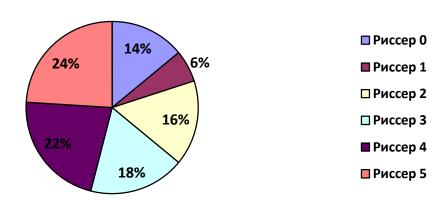


Рисунок 5: Распределение больных с деформацией позвоночника III степени по индексу Риссера.

Согласно диаграмме, большинство (24% и 22%) составили дети старшего подросткового возраста с законченным или почти законченным костным ростом (Risser4 и 5) на их долю пр иходится 46% в группе больных со сколиозом 3 степени.

Таким образом, на основании проведенного контингента детей c деформациями анализа позвоночника, обратившихся впервые для обследования и реабилитационного лечения в клиникуУкрНИИППза

10 лет наблюдения, можно сформировать общий «клинический портрет»впервые обратившегося медицинской помощью пациента: это ребенок женского пола в возрасте 11 - 13 лет с неоконченным костным ростом (тест Risser 2 -3), правосторонней груднойдеформацией позвоночника ІІ степени.

Дети с такими характеристиками имеют большие потенциальные возможности для достижения позитивного результата консервативного

Возможно применяется широкого арсенала методов реабилитации – лечебной гимнастики, дыхательной методу K.Schroth, гимнастики ПО инновационного оборудования с расширенной обратной связью (ValedoMotion), аппаратной физиотерапии, плаванья, а также корсетотерапии по показаниям.

Анализ полученных результатов свидетельствуют, что большинство детей, впервые обратившихся в по поводу деформации позвоночника, сделало это вовремя и имеет хорошие перспективы консервативного лечения. Своевременность обращения, как мы знаем, зависитот ряда факторов: от доступности медицинской помощи, от обеспеченности врачами ортопедами региона и от их квалификации, от медицинской активности населения и наличия возможности обращаться за медицинской помощью по месту жительства и в специализированные медицинские центры, от уровня санитарной культуры населения и мотивации к здоровому образу жизни. Это один из социальной направленности показателей работы здравоохранения.

#### III. Выводы

Одним ИЗ условий эффективности реабилитационных мероприятий детей деформациями позвоночника является своевременное (раннее) обращение к специалисту. Анализ архивных материалов УкрНИИ протезирования позволил оценить обращаемости структуру первичной детей деформациями позвоночника. Наибольшее количество обращений происходит первичных возрасте незаконченного костного роста, при правосторонней грудной деформации 2 степени у девочек, что позволяет использовать широкий арсенал консервативных методов лечения для предупреждения прогрессирования и возможной коррекции деформации позвоночника.

Авторы выражают искреннюю благодарность Директору Украинского НИИ протезирования, протезостроения и реабилитации, канд. т. н. Салеевой А.Д. за оказанную помощь при планировании и написании настоящей статьи.

#### Список литературы

- https://ukrstat.org/uk/druk/publicat/Arhiv\_u/15/Arch\_d gs zb.htm
- Цакнакис К., Брауншвейг Л., Лоренц Х.М., Хелл А.К. Деформация позвоночника при юношеском идиопатическом сколиозе в концелечения Шено Ортопедия, помощью корсета травматология и восстановительная хирургия детского возраста. - 2020. - Т. 8. - Вып. 3. - С. 269-274. https://doi.org/10.17816/PTORS34039
- Idiopathicscoliosis: the Harms Study Group treatment guide / [edited by] Peter O. Newton ... [etal.] Thieme Medical Publishers, Inc — 2010
- Леин Г.А., Гусев М.Г. СОВРЕМЕННЫЕ МЕТОДЫ ДИАГНОСТИКИ, КЛАССИФИКАЦИИ ЛЕЧЕНИЯ ИДИОПАТИЧЕСКОГО СКОЛИОЗА. МИРОВОЙ ОПЫТ [Електронний ресурс]

- Комплексноелечениесколиозов у детей: материалы науч.- практ. конф. с междунар. участием; Санкт-Петербург, 19 сентября 2018 года / ФГБУ «НИДОИ им. Г.И. Турнера» Минздрава России, СПбГБУЗ «ВЦДОиТ «Огонек», Протезно-ортопедический центр «Сколиолоджик.ру». – 2018. – Режим доступу pecypcy: https://publishing.intelgr.com/archive/ scoliosis treatment.pdf.
- Овечкина А.В. ПРОБЛЕМЫ ДИАГНОСТИКИ И КОНСЕРВАТИВНОГО ЛЕЧЕНИЯ ИДИОПАТИЧЕСКОГО СКОЛИОЗА У ДЕТЕЙ [Електронний ресурс] / Овечкина А.В., Дрожжина Л.А. // Комплексное лечение сколиозов у детей: материалы науч.- практ. конф. с междунар. участием; Санкт-Петербург, 19 сентября 2018 года / ФГБУ «НИДОИ им. Г.И. Турнера» Минздрава России, СПбГБУЗ «ВЦДОиТ «Огонек», Протезноортопедический центр «Сколиолоджик. ру». . pecypcy: Режим доступу https://publishing.intelgr.com/archive/scoliosis\_treatme nt.pdf.
- 6. Федотова З.И., Першин А.А. Обзор методов исследования деформации туловища и индексов деформации при сколиозе // Физическая и реабилитационная медицина. – 2020. – Т. 2. – № 2. - C. 35-50. DOI: 10.26211/2658-4522-2020-2-2-35-50

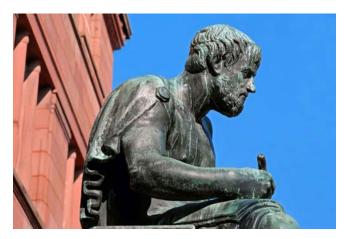
# Global Journals Guidelines Handbook 2023

www.GlobalJournals.org

# **MEMBERSHIPS**

# FELLOWS/ASSOCIATES OF MEDICAL RESEARCH COUNCIL

#### FMRC/AMRC MEMBERSHIPS



#### INTRODUCTION

FMRC/AMRC is the most prestigious membership of Global Journals accredited by Open Association of Research Society, U.S.A (OARS). The credentials of Fellow and Associate designations signify that the researcher has gained the knowledge of the fundamental and high-level concepts, and is a subject matter expert, proficient in an expertise course covering the professional code of conduct, and follows recognized standards of practice. The credentials are designated only to the researchers, scientists, and professionals that have been selected by a rigorous process by our Editorial Board and Management Board.

Associates of FMRC/AMRC are scientists and researchers from around the world are working on projects/researches that have huge potentials. Members support Global Journals' mission to advance technology for humanity and the profession.

## **FMRC**

#### FELLOW OF MEDICAL RESEARCH COUNCIL

FELLOW OF MEDICAL RESEARCH COUNCIL is the most prestigious membership of Global Journals. It is an award and membership granted to individuals that the Open Association of Research Society judges to have made a 'substantial contribution to the improvement of computer science, technology, and electronics engineering.

The primary objective is to recognize the leaders in research and scientific fields of the current era with a global perspective and to create a channel between them and other researchers for better exposure and knowledge sharing. Members are most eminent scientists, engineers, and technologists from all across the world. Fellows are elected for life through a peer review process on the basis of excellence in the respective domain. There is no limit on the number of new nominations made in any year. Each year, the Open Association of Research Society elect up to 12 new Fellow Members.



#### BENEFIT

#### TO THE INSTITUTION

#### GET LETTER OF APPRECIATION

Global Journals sends a letter of appreciation of author to the Dean or CEO of the University or Company of which author is a part, signed by editor in chief or chief author.



### **EXCLUSIVE NETWORK**

#### GET ACCESS TO A CLOSED NETWORK

A FMRC member gets access to a closed network of Tier 1 researchers and scientists with direct communication channel through our website. Fellows can reach out to other members or researchers directly. They should also be open to reaching out by other.

Career

Credibility

Exclusive

Reputation



#### **CERTIFICATE**

#### CERTIFICATE, LOR AND LASER-MOMENTO

Fellows receive a printed copy of a certificate signed by our Chief Author that may be used for academic purposes and a personal recommendation letter to the dean of member's university.

Career

Credibility

Exclusive

Reputation



#### **DESIGNATION**

#### GET HONORED TITLE OF MEMBERSHIP

Fellows can use the honored title of membership. The "FMRC" is an honored title which is accorded to a person's name viz. Dr. John E. Hall, Ph.D., FMRC or William Walldroff, M.S., FMRC.

Career

Credibility

Exclusive

Reputation

#### RECOGNITION ON THE PLATFORM

#### BETTER VISIBILITY AND CITATION

All the Fellow members of FMRC get a badge of "Leading Member of Global Journals" on the Research Community that distinguishes them from others. Additionally, the profile is also partially maintained by our team for better visibility and citation. All fellows get a dedicated page on the website with their biography.

Career

Credibility

Reputation



© Copyright by Global Journals | Guidelines Handbook

# **FUTURE WORK**

#### GET DISCOUNTS ON THE FUTURE PUBLICATIONS

Fellows receive discounts on the future publications with Global Journals up to 60%. Through our recommendation programs, members also receive discounts on publications made with OARS affiliated organizations.

Career

Financial



# GJ Internal Account

Unlimited forward of Emails

Fellows get secure and fast GJ work emails with unlimited storage of emails that they may use them as their primary email. For example, john [AT] globaljournals [DOT] org.

Career

Credibility

Reputation



#### PREMIUM TOOLS

#### ACCESS TO ALL THE PREMIUM TOOLS

To take future researches to the zenith, fellows receive access to all the premium tools that Global Journals have to offer along with the partnership with some of the best marketing leading tools out there.

Financial

# **CONFERENCES & EVENTS**

#### ORGANIZE SEMINAR/CONFERENCE

Fellows are authorized to organize symposium/seminar/conference on behalf of Global Journal Incorporation (USA). They can also participate in the same organized by another institution as representative of Global Journal. In both the cases, it is mandatory for him to discuss with us and obtain our consent. Additionally, they get free research conferences (and others) alerts.

Career

Credibility

Financial

#### EARLY INVITATIONS

#### EARLY INVITATIONS TO ALL THE SYMPOSIUMS, SEMINARS, CONFERENCES

All fellows receive the early invitations to all the symposiums, seminars, conferences and webinars hosted by Global Journals in their subject.

Exclusive

© Copyright by Global Journals | Guidelines Handbook





# PUBLISHING ARTICLES & BOOKS

#### EARN 60% OF SALES PROCEEDS

Fellows can publish articles (limited) without any fees. Also, they can earn up to 70% of sales proceeds from the sale of reference/review books/literature/publishing of research paper. The FMRC member can decide its price and we can help in making the right decision.

Exclusive

Financial

# REVIEWERS

#### GET A REMUNERATION OF 15% OF AUTHOR FEES

Fellow members are eligible to join as a paid peer reviewer at Global Journals Incorporation (USA) and can get a remuneration of 15% of author fees, taken from the author of a respective paper.

Financial

# ACCESS TO EDITORIAL BOARD

#### BECOME A MEMBER OF THE EDITORIAL BOARD

Fellows and Associates may join as a member of the Editorial Board of Global Journals Incorporation (USA) after successful completion of three years as Fellow and as Peer Reviewer.

Career

Credibility

Exclusive

Reputation

#### AND MUCH MORE

#### GET ACCESS TO SCIENTIFIC MUSEUMS AND OBSERVATORIES ACROSS THE GLOBE

All members get access to 5 selected scientific museums and observatories across the globe. All researches published with Global Journals will be kept under deep archival facilities across regions for future protections and disaster recovery. They get 10 GB free secure cloud access for storing research files.



# **AMRC**

#### ASSOCIATE OF MEDICAL RESEARCH COUNCIL

ASSOCIATE OF MEDICAL RESEARCH COUNCIL is the membership of Global Journals awarded to individuals that the Open Association of Research Society judges to have made a 'substantial contribution to the improvement of computer science, technology, and electronics engineering.

The primary objective is to recognize the leaders in research and scientific fields of the current era with a global perspective and to create a channel between them and other researchers for better exposure and knowledge sharing. Members are most eminent scientists, engineers, and technologists from all across the world. Associate membership can later be promoted to Fellow Membership. Associates are elected for life through a peer review process on the basis of excellence in the respective domain. There is no limit on the number of new nominations made in any year. Each year, the Open Association of Research Society elect up to 12 new Associate Members.



#### BENEFIT

#### TO THE INSTITUTION

#### GET LETTER OF APPRECIATION

Global Journals sends a letter of appreciation of author to the Dean or CEO of the University or Company of which author is a part, signed by editor in chief or chief author.



### **EXCLUSIVE NETWORK**

#### GET ACCESS TO A CLOSED NETWORK

A AMRC member gets access to a closed network of Tier 2 researchers and scientists with direct communication channel through our website. Associates can reach out to other members or researchers directly. They should also be open to reaching out by other.

Career

Credibility

Exclusive

Reputation



#### CERTIFICATE

#### CERTIFICATE, LOR AND LASER-MOMENTO

Associates receive a printed copy of a certificate signed by our Chief Author that may be used for academic purposes and a personal recommendation letter to the dean of member's university.

Career

Credibility

Exclusive

Reputation



#### DESIGNATION

#### GET HONORED TITLE OF MEMBERSHIP

Associates can use the honored title of membership. The "AMRC" is an honored title which is accorded to a person's name viz. Dr. John E. Hall, Ph.D., AMRC or William Walldroff, M.S., AMRC.

Career

Credibility

Exclusive

Reputation

#### RECOGNITION ON THE PLATFORM

#### BETTER VISIBILITY AND CITATION

All the Associate members of AMRC get a badge of "Leading Member of Global Journals" on the Research Community that distinguishes them from others. Additionally, the profile is also partially maintained by our team for better visibility and citation.

Career

Credibility

Reputation



# **FUTURE WORK**

#### GET DISCOUNTS ON THE FUTURE PUBLICATIONS

Associates receive discounts on future publications with Global Journals up to 30%. Through our recommendation programs, members also receive discounts on publications made with OARS affiliated organizations.

Career

Financial



# GJ ACCOUNT

#### Unlimited forward of Emails

Associates get secure and fast GJ work emails with 5GB forward of emails that they may use them as their primary email. For example, john [AT] globaljournals [DOT] org.

Career

Credibility

Reputation



# PREMIUM TOOLS

#### ACCESS TO ALL THE PREMIUM TOOLS

To take future researches to the zenith, fellows receive access to almost all the premium tools that Global Journals have to offer along with the partnership with some of the best marketing leading tools out there.

Financial

# **CONFERENCES & EVENTS**

#### ORGANIZE SEMINAR/CONFERENCE

Associates are authorized to organize symposium/seminar/conference on behalf of Global Journal Incorporation (USA). They can also participate in the same organized by another institution as representative of Global Journal. In both the cases, it is mandatory for him to discuss with us and obtain our consent. Additionally, they get free research conferences (and others) alerts.

Career

Credibility

Financial

# **EARLY INVITATIONS**

#### EARLY INVITATIONS TO ALL THE SYMPOSIUMS, SEMINARS, CONFERENCES

All associates receive the early invitations to all the symposiums, seminars, conferences and webinars hosted by Global Journals in their subject.

Exclusive

© Copyright by Global Journals | Guidelines Handbook





# Publishing Articles & Books

# EARN 60% OF SALES PROCEEDS

Associates can publish articles (limited) without any fees. Also, they can earn up to 30-40% of sales proceeds from the sale of reference/review books/literature/publishing of research paper

Exclusive

Financial

# REVIEWERS

#### GET A REMUNERATION OF 15% OF AUTHOR FEES

Associate members are eligible to join as a paid peer reviewer at Global Journals Incorporation (USA) and can get a remuneration of 15% of author fees, taken from the author of a respective paper.

Financial

# AND MUCH MORE

#### GET ACCESS TO SCIENTIFIC MUSEUMS AND OBSERVATORIES ACROSS THE GLOBE

All members get access to 2 selected scientific museums and observatories across the globe. All researches published with Global Journals will be kept under deep archival facilities across regions for future protections and disaster recovery. They get 5 GB free secure cloud access for storing research files.



Associate	Fellow	Research Group	BASIC
\$4800 lifetime designation	\$6800 lifetime designation	\$12500.00 organizational	APC per article
Certificate, LoR and Momento 2 discounted publishing/year Gradation of Research 10 research contacts/day 1 GB Cloud Storage GJ Community Access	Certificate, LoR and Momento Unlimited discounted publishing/year Gradation of Research Unlimited research contacts/day 5 GB Cloud Storage Online Presense Assistance GJ Community Access	Certificates, LoRs and Momentos Unlimited free publishing/year Gradation of Research Unlimited research contacts/day Unlimited Cloud Storage Online Presense Assistance GJ Community Access	<b>GJ</b> Community Access

# 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



© Copyright by Global Journals | Guidelines Handbook

- 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:

- Substantial contributions to the conception and acquisition of data, analysis, and interpretation of findings.
- 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.

# Copyright

During submission of the manuscript, the author is confirming an exclusive license agreement with Global Journals which gives Global Journals the authority to reproduce, reuse, and republish authors' research. We also believe in flexible copyright terms where copyright may remain with authors/employers/institutions as well. Contact your editor after acceptance to choose your copyright policy. You may follow this form for copyright transfers.

#### **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.
- 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 webfriendliness 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.

An abstract is a brief, distinct paragraph summary of finished work or work in development. In a minute or less, a reviewer can be taught the foundation behind the study, common approaches to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Use comprehensive sentences, and do not sacrifice readability for brevity; you can maintain it succinctly by phrasing sentences so that they provide more than a lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study with the subsequent elements in any summary. Try to limit the initial two items to no more than one line each.

Reason for writing the article—theory, overall issue, purpose.

- Fundamental goal.
- To-the-point depiction of the research.
- Consequences, including definite statistics—if the consequences are quantitative in nature, account for this; results of any numerical analysis should be reported. Significant conclusions or questions that emerge from the research.

# Approach:

- Single section and succinct.
- An outline of the job done is always written in past tense.
- o Concentrate on shortening results—limit background information to a verdict or two.
- Exact spelling, clarity of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else.

#### Introduction:

The introduction should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable of comprehending and calculating the purpose of your study without having to refer to other works. The basis for the study should be offered. Give the most important references, but avoid making a comprehensive appraisal of the topic. Describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will give no attention to your results. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here.



The following approach can create a valuable beginning:

- o Explain the value (significance) of the study.
- o Defend the model—why did you employ this particular system or method? What is its compensation? Remark upon its appropriateness from an abstract point of view as well as pointing out sensible reasons for using it.
- Present a justification. State your particular theory(-ies) or aim(s), and describe the logic that led you to choose them.
- Briefly explain the study's tentative purpose and how it meets the declared objectives.

#### Approach:

Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done. Sort out your thoughts; manufacture one key point for every section. If you make the four points listed above, you will need at least four paragraphs. Present surrounding information only when it is necessary to support a situation. The reviewer does not desire to read everything you know about a topic. Shape the theory specifically—do not take a broad view.

As always, give awareness to spelling, simplicity, and correctness of sentences and phrases.

#### Procedures (methods and materials):

This part is supposed to be the easiest to carve if you have good skills. A soundly written procedures segment allows a capable scientist to replicate your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order, but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt to give the least amount of information that would permit another capable scientist to replicate your outcome, but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section.

When a technique is used that has been well-described in another section, mention the specific item describing the way, but draw the basic principle while stating the situation. The purpose is to show all particular resources and broad procedures so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step-by-step report of the whole thing you did, nor is a methods section a set of orders.

# **Materials:**

Materials may be reported in part of a section or else they may be recognized along with your measures.

#### Methods:

- Report the method and not the particulars of each process that engaged the same methodology.
- Describe the method entirely.
- o To be succinct, present methods under headings dedicated to specific dealings or groups of measures.
- Simplify—detail how procedures were completed, not how they were performed on a particular day.
- o If well-known procedures were used, account for the procedure by name, possibly with a reference, and that's all.

#### Approach:

It is embarrassing to use vigorous voice when documenting methods without using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result, when writing up the methods, most authors use third person passive voice.

Use standard style in this and every other part of the paper—avoid familiar lists, and use full sentences.

# What to keep away from:

- o Resources and methods are not a set of information.
- o Skip all descriptive information and surroundings—save it for the argument.
- o Leave out information that is immaterial to a third party.



© Copyright by Global Journals | Guidelines Handbook

#### **Results:**

The principle of a results segment is to present and demonstrate your conclusion. Create this part as entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Use statistics and tables, if suitable, to present consequences most efficiently.

You must clearly differentiate material which would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matters should not be submitted at all except if requested by the instructor.

#### **Content:**

- Sum up your conclusions in text and demonstrate them, if suitable, with figures and tables.
- o In the manuscript, explain each of your consequences, and point the reader to remarks that are most appropriate.
- o Present a background, such as by describing the question that was addressed by creation of an exacting study.
- Explain results of control experiments and give remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or manuscript.

#### What to stay away from:

- Do not discuss or infer your outcome, report surrounding information, or try to explain anything.
- Do not include raw data or intermediate calculations in a research manuscript.
- o Do not present similar data more than once.
- o A manuscript should complement any figures or tables, not duplicate information.
- Never confuse figures with tables—there is a difference.

#### Approach:

As always, use past tense when you submit your results, and put the whole thing in a reasonable order.

Put figures and tables, appropriately numbered, in order at the end of the report.

If you desire, you may place your figures and tables properly within the text of your results section.

# Figures and tables:

If you put figures and tables at the end of some details, make certain that they are visibly distinguished from any attached appendix materials, such as raw facts. Whatever the position, each table must be titled, numbered one after the other, and include a heading. All figures and tables must be divided from the text.

# Discussion:

The discussion is expected to be the trickiest segment to write. A lot of papers submitted to the journal are discarded based on problems with the discussion. There is no rule for how long an argument should be.

Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implications of the study. The purpose here is to offer an understanding of your results and support all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of results should be fully described.

Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact, you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved the prospect, and let it drop at that. Make a decision as to whether each premise is supported or discarded or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."



Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.

- o You may propose future guidelines, such as how an experiment might be personalized to accomplish a new idea.
- o Give details of all of your remarks as much as possible, focusing on mechanisms.
- o Make a decision as to whether the tentative design sufficiently addressed the theory and whether or not it was correctly restricted. Try to present substitute explanations if they are sensible alternatives.
- One piece of research will not counter an overall question, so maintain the large picture in mind. Where do you go next? The best studies unlock new avenues of study. What questions remain?
- o Recommendations for detailed papers will offer supplementary suggestions.

# Approach:

When you refer to information, differentiate data generated by your own studies from other available information. Present work done by specific persons (including you) in past tense.

Describe generally acknowledged facts and main beliefs in present tense.

# THE ADMINISTRATION RULES

Administration Rules to Be Strictly Followed before Submitting Your Research Paper to Global Journals Inc.

Please read the following rules and regulations carefully before submitting your research paper to Global Journals Inc. to avoid rejection.

Segment draft and final research paper: You have to strictly follow the template of a research paper, failing which your paper may get rejected. You are expected to write each part of the paper wholly on your own. The peer reviewers need to identify your own perspective of the concepts in your own terms. Please do not extract straight from any other source, and do not rephrase someone else's analysis. Do not allow anyone else to proofread your manuscript.

Written material: You may discuss this with your guides and key sources. Do not copy anyone else's paper, even if this is only imitation, otherwise it will be rejected on the grounds of plagiarism, which is illegal. Various methods to avoid plagiarism are strictly applied by us to every paper, and, if found guilty, you may be blacklisted, which could affect your career adversely. To guard yourself and others from possible illegal use, please do not permit anyone to use or even read your paper and file.



# CRITERION FOR GRADING A RESEARCH PAPER (COMPILATION) BY GLOBAL JOURNALS

Please note that following table is only a Grading of "Paper Compilation" and not on "Performed/Stated Research" whose grading solely depends on Individual Assigned Peer Reviewer and Editorial Board Member. These can be available only on request and after decision of Paper. This report will be the property of Global Journals.

Topics	Grades		
	A-B	C-D	E-F
Abstract	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form Above 200 words	No specific data with ambiguous information Above 250 words
Introduction	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
Methods and Procedures	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
Result	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
Discussion	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring



# INDEX

A
Abrasive · 3 Adherence · 14
C
Combustion · 3 Competent · 13
D
Disparity · 2, 15 Disseminates · 1
T .
Impediment · 2
P
Pronation · 8
R
Repercussions · 2, 5, 14
S
Stipulate · 3 Surveillance · 1



# Global Journal of Medical Research

Visit us on the Web at www.GlobalJournals.org | www.MedicalResearchJournal.org or email us at helpdesk@globaljournals.org

7.0.11.6 | 5.8.6.9.8

61427>

122N 9755896