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Pharma, Drug Discovery, Toxicology & Medicine

Profile of Work Accidents

Epidemiological Profile of Patients

Highlights

Chronic Ankle Ligament Injury

Relationship with the Intestinal Microbiota

Discovering Thoughts, Inventing Future

VOLUME 23 ISSUE 3 VERSION 1.0

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Clinical and Epidemiological Profile of Patients with Ewing's Sarcoma

By Henrique Hollanda Larangeira, Tábata de Oliveira Silva, Rafaela da Silva Schottz, Ingrid Fabric Gouveia Lima, Lina Borges Cavalcante, Marcus Antonio Studart da Cunha Frota, Janaína Gomes da Rocha, Lucas Martins Ferreira Guimaraes, Henrique de Castro Veiga, Idacir França Bottoli, Júlia Lottermann Vinhas, José Maria Teixeira de Oliveira, Maria Eduarda Lima de Aquino, Aline Bezerra Vargas, Eduarda de Oliveira, Lucas Belém Pessôa de Melo Guerra Seixas, Julia Pessoa de Melo Seixas, Dra. Aline de Amorim Duarte, Dayane Carolini Rodrigues & Edson Brunetti Da Silva

Abstract- *Introduction:* Understanding that cancer is a pathology that is challenging to detect, treat, and comprehend is what makes the study of cancer so important. The goal of this case study is to show how a 20-year-old woman was affected by a variety of factors and symptoms that, when combined, raised suspicion of Ewing's sarcoma, the second most common primary tumor in children and young adults. Ewing's sarcoma has the characteristics of being an aggressive malignancy originating in the bones.

Keywords: *ewing's sarcoma; chest wall tumor; oncology.*

GJMR-B Classification: *NLM: QV 744*

Clinical and Epidemiological Profile of Patients with Ewing's Sarcoma

Henrique Hollanda Larangeira [α], Tábata de Oliveira Silva [σ], Rafaela da Silva Schottz [ρ], Ingrid Fabric Gouveia Lima [ω], Lina Borges Cavalcante [¥], Marcus Antonio Studart da Cunha Frota [§], Janaína Gomes da Rocha [χ], Lucas Martins Ferreira Guimaraes [ν], Henrique de Castro Veiga [Θ], Idacir França Bottoli [ζ], Júlia Lottermann Vinhas [£], José Maria Teixeira de Oliveira [€], Maria Eduarda Lima de Aquino [₣], Aline Bezerra Vargas [₴], Eduarda de Oliveira [₲], Lucas Belém Pessôa de Melo Guerra Seixas [₳], Julia Pessoa de Melo Seixas [₫], Dra. Aline de Amorim Duarte [₥] Dayane Carolini Rodrigues [₢] & Edson Brunetti Da Silva [₵]

Abstract- Introduction: Understanding that cancer is a pathology that is challenging to detect, treat, and comprehend is what makes the study of cancer so important. The goal of this case study is to show how a 20-year-old woman was affected by a variety of factors and symptoms that, when combined, raised suspicion of Ewing's sarcoma, the second most common primary tumor in children and young adults. Ewing's sarcoma has the characteristics of being an aggressive malignancy originating in the bones.

Methodology: The present research uses clinical trials to treat and address the epidemiological component, with the analysis of a case report serving as a guide. SciELO and PubMed data platforms were utilized to compile the foundation of a literature review. The research period ran from July 2023 to the end of 2023, and publications published in Portuguese and English between 2000 and 2023 that met the inclusion criteria were both online texts and complete texts. As strategies for better evaluation of the texts, the following health descriptors (DeCS) were used: "Ewing's sarcoma" and "Chest wall tumor".

Case Report: S.J.J., female, 20 years old, student She arrived at the hospital complaining of chest pain for 2 years—intense pain—and did not present other respiratory symptoms. She denied a fever and weight loss. She reports childhood asthma and denies a cancer history. She denies alcoholism and smoking. She reports that her mother had breast cancer. On physical examination, she was in good general condition, afebrile, anicteric, and eupneic on room oxygenation; absence of palpable lymph nodes in the cervical, supraclavicular, and axillary regions; auscultation of the respiratory system showed bilateral physiological vesicular murmurs and no adventitious sounds; there was no palpable tumor in the region of the chest, and did not present a restriction to the mobilization of the upper limbs. Saturation was 98% at the time of the initial consultation.

Discussion: Bone Ewing's Sarcoma is known to be an aggressive tumor that typically affects people in their second decade of life. Also take note of the radiographic appearance of a licit lesion with a periosteal reaction indicative of an aggressive lesion. Additionally, the immunohistochemistry study is required to distinguish and categorize the various Ewing family sarcoma kinds. Thus, the case shows the importance of investigating pathologies that have not yet been well elucidated since rare diseases are not part of the medical routine, so their diagnosis brings the opportunity to obtain more specialized treatments.

Conclusion: Thus, the case shows the importance of investigating pathologies that have not yet been well elucidated since rare diseases are not part of the medical routine, so their diagnosis brings the opportunity to obtain more specialized treatments.

Keywords: ewing's sarcoma; chest wall tumor; oncology.

I. Introduction

The main aspect in which a study on cancer is necessary is to understand that lives are transformed by a pathology that is difficult to diagnose, treat, and understand. The objective of this case report is to illustrate how a 20-year-old girl was affected by a whole set of factors and signs that, when compiling the main characteristic points, led to the suspicion of Ewing's Sarcoma, the second most common primary tumor in children and adolescents. Ewing's sarcoma has the characteristics of being an aggressive malignancy originating in the bones.

II. Methodology

In this epidemiological study, the utilization of clinical trials to treat and address the epidemiological element is discussed using a case report as a guide. in conjunction with an assessment of the literature, whose sources came from the SciELO and PubMed data sources. The research was made in July 2023, meeting the inclusion criteria, which were articles from the years 2000 to 2023, in Portuguese and English, online texts, and full texts. As strategies for better evaluation of the texts, the following health descriptors (DeCS) were used: "Ewing's sarcoma" and "Chest wall tumor" .

a) Case Report

S.J.J., female, 20 years old, student She arrived at the hospital complaining of chest pain for 2 years—intense pain—and did not present other respiratory symptoms. She denied a fever and weight loss. She reports childhood asthma and denies a cancer history. She denies alcoholism and smoking. She reports that her mother had breast cancer. On physical examination, she was in good general condition, afebrile, anicteric, and eupneic on room air; there were no palpable lymph nodes in the cervical, supraclavicular, and axillary regions; auscultation of the respiratory system showed

bilateral physiological vesicular murmurs and no adventitious sounds; there was no palpable tumor in the region of the chest; and she did not present a restriction to the mobilization of the upper limbs. At the time of the first consultation, the saturation was 98% in room air.

A biopsy and several computed tomography images of the chest were done simultaneously. The first separate scout had an expansive lung lesion in the right lower lobe. One characteristic that stands out when all the scouts are analyzed is the nodule development angle, which is larger than 90 degrees and indicates an extrapulmonary lesion. In addition, chest tomography revealed opacity and demarcation in the xiphosternal line. Finally, the immunohistochemical analysis identified a neoplasm as cells with rounded, regular nuclei, coarse chromatin, and scant cytoplasm. The round cells, which in turn present an organoid pattern and fibromyxoid stroma, raise suspicions about the origin of the tumor.

The upper segment of the right lower lobe contained a solid and homogeneous subpleural expansive lesion that measured 6.0 x 3.4 cm in the largest axial axes. This lesion was located using a second computed tomography scan of the chest for surgical planning. The anterior cortex of the corresponding fifth and sixth costal arches looked to be in close contact with it, and a minor remodeling of the bones was observed. There is no pleural effusion and normal lung parenchyma.

The patient underwent a treatment that included myocutaneous repair, free margins, and resection from the fourth to the seventh quadrant. Three months after the date of surgery, a computed tomography scan of the chest was performed, showing signs of surgical manipulation on the right chest wall and blurring of the posterior aspect of the fourth to seventh costal arches on that side, with no signs of tumor remaining in the analysis for this one. As a result of the third right costal arch fracture, there was an atelectatic band on the lingula, no pleural effusion, the heart volume was still normal, and the thoracic aorta had a normal course and diameter. The patient was advised to have chest resonance segmentation every six months; however, the patient did not return for follow-up.

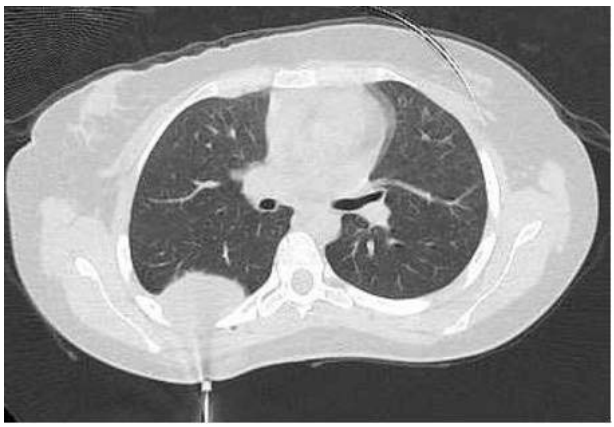

Figure 1: Tomographic scout prior to surgery

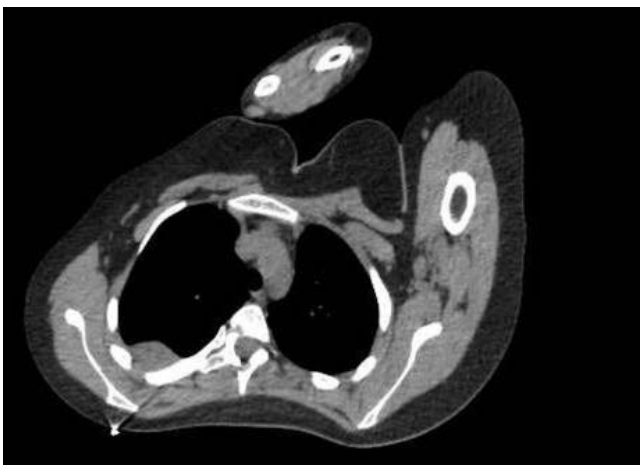

Figure 2: Tomographic scout prior to surgery

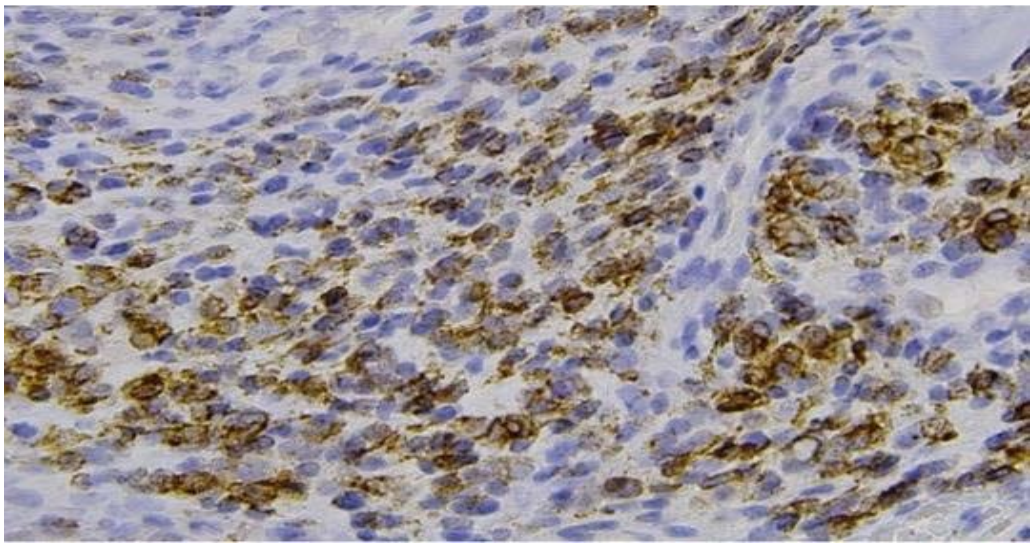

Figure 3: Histological slide

III. Results & Discussion

In its initial aspect, Ewing's Sarcoma is a malignant bone tumor characterized by round, primitive cells without obvious differentiation. Localized pain, with the potential for a palpable mass depending on the location, characterizes the clinical presentation. Wide surgical resection is the primary form of treatment, possibly with radiotherapy.

Since chest wall tumors are cancerous tumors that can impair lung function, the issue was chosen because of its importance to society. In this regard, primary tumors of the chest wall make up 5% of all tumors and impact bone tissue in roughly 55% of cases. A distinct clinical picture, histological characteristics, specificity, and anatomical location preference. To confirm the diagnostic theory of Ewing's Sarcoma, tomography and biopsies must also be carried out.

Based on the retrospective analysis of prospective studies by the Cooperative Weichteilsarkom Studiengruppe (CWS), carried out with 60 patients from 1997 to 2015, the prevalence of Ewing's sarcoma in men was observed, with a ratio of 4 men to 1 woman. The average age of a person with this sarcoma is 14.5 years old. In addition, the intra-abdominal and retroperitoneal regions are affected in about 93% of cases, with emphasis on the thoracic, paratesticular, and parotid gland regions. In 67% of the cases, they had tumors larger than 10 cm, and 88% had locally disseminated tumors; thus, in most cases, sarcoma was characterized by large and disseminated tumors.

10% of patients had only a single, isolated tumor at the time of clinical presentation; 27% had spread to nearby lymph nodes; and 63% had extraperitoneal metastasis, of which 67% underwent surgical resection. Regarding treatment, of the 60 patients, nine underwent high-dose chemotherapy, six received regional hyperthermia, and 20 received radiotherapy. As a result, 51 patients died, of whom 49 due to the disease and 2 due to abandonment of chemotherapy and peritonitis. Surgery with resection at R0 is the aim; radiotherapy was implemented in patients with extensive or unresectable disease. The VAIA chemotherapy regimen (ifosfamide, vincristine, adriamycin, and actinomycin D) produced the best results overall.

Additionally, 32% of patients had relapsed, 26.7% had disease-free time for three years, and 42% of patients had complete disease remission. The investigation revealed that no risk factor was connected to the progression of the disease, tumor size did not affect mortality, and metastatic sites did not exhibit a statistically significant prevalence. Sarcoma has a proven bad prognosis; often, a patient with a good prognosis has limited extra-abdominal illness, no pleural effusion, has undergone surgery at R0, and has used CT VAIA.

It is possible to observe the proportion of the evolution of cases in several patients, making a general analysis and allowing a certain orientation, both for the immediate treatment and for the prognosis of the patients.

In this way, neuroendocrine tumors and Ewing's sarcoma have been combined into a family of sarcomas. Although the latter studies exhibit greater neuroectodermal differentiation than Ewing's sarcoma, this difference is not clinically relevant. Typically, Ewing's sarcoma invades the cortex, periosteum, and soft tissues. They have a sparse cytoplasm that seems cleaner, which is a result of the high glycogen content. They have a sparse cytoplasm that seems cleaner, which is a result of the high glycogen content. It is a sarcoma that primarily affects flat bones like the pelvis, ribs, and vertebrae, as well as the trunk when soft tissues are involved. Immunohistochemical analysis of the samples shows the existence of cells with rounded,

regular nuclei, coarse chromatin, and sparse cytoplasm. The round cells themselves have a fibromyxoid stroma and an organoid pattern. As a result, similar characteristics to the reported case are confirmed.

It appears that bone Ewing's Sarcoma is an aggressive tumor, usually affecting individuals in the second decade of life. Note also the appearance of a licit lesion with a periosteal reaction typical of an aggressive lesion on X-RAY. Furthermore, the immunohistochemical study is necessary to differentiate and classify the types of sarcomas in the Ewing family. Thus, the case shows the importance of investigating pathologies that have not yet been well elucidated since rare diseases are not part of the medical routine, so their diagnosis brings the opportunity to obtain more specialized treatments.

IV. Conclusion

In this way, the case highlights the need to research pathologies that have not yet been fully understood because rare diseases are not common and their diagnosis guarantees access to more specialized treatments.

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Chronic Ankle Ligament Injury and its Clinical Management, A Literature Review

By Amanda Gomes Quiroga, Jose Pereira da Silva Filho, Joaquim Lucas Silva Cardoso, Valter Oliveira da Silva, Ana Beatriz de Matos Berg Abrantes, Rebeca Mendes Peres, Fabiana Caroline Coelho Carvalho Firme, Isabella Menezes Batista, Eduarda Monteiro Machado, Ana Laura Passos de Magalhães, Ulisses Tomaz Monteiro, Bruna Daher Fonseca, Marina Mota de Oliveira Madruga, Caio Lopes Oliveira, Rayssa Blenda Martins, Victor de Oliveira Bessa, Maria Alice Silva Vasconcelos, Pollyane Vieira de Almeida, Eduardo Fernandes Rodrigues Raphael Vinicius Mendes Abreu, & Adeni Ferreira dos Santos Junior

Abstract- *Introduction:* It's important to comprehend the key concepts of chronic ligament injuries to the ankle, which occur when there is deterioration or weakening and can result from recurrent or untreated trauma (AMODIO, 2013). Chronic ligament damage typically results from frequent ankle sprains. Ligaments are fibrous tissues that connect bones and provide stability for joints. In the ankle, the ligaments most commonly affected are the anterior talofibular ligament and the calcaneofibular ligament.

Keywords: *ligament injury; ankle; chronic injury.*

GJMR-B Classification: *NLM: QZ 220*

Strictly as per the compliance and regulations of:

Chronic Ankle Ligament Injury and its Clinical Management, A Literature Review

Amanda Gomes Quiroga [α], Jose Pereira da Silva Filho [σ], Joaquim Lucas Silva Cardoso [ρ], Valter Oliveira da Silva [ω], Ana Beatriz de Matos Berg Abrantes [¥], Rebeca Mendes Peres [§], Fabiana Caroline Coelho Carvalho Firme [χ], Isabella Menezes Batista [ν], Eduarda Monteiro Machado [Θ], Ana Laura Passos de Magalhães [ζ], Ulisses Tomaz Monteiro [£], Bruna Daher Fonseca [€], Marina Mota de Oliveira Madruga [Fr], Caio Lopes Oliveira [₴], Rayssa Blenda Martins [₲], Victor de Oliveira Bessa [₳], Maria Alice Silva Vasconcelos [₫], Pollyane Vieira de Almeida [₥], Eduardo Fernandes Rodrigues [₢] Raphael Vinicius Mendes Abreu [₡] & Adeni Ferreira dos Santos Junior [ξ]

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Methodology: This is a literature review whose bases were taken from the SciELO and PubMed data platforms. The research period was July 2023, meeting the inclusion criteria, which were articles from the years 2000 to 2023, in Portuguese and English, online texts, and full texts. The following health descriptors (DeCS) were employed as evaluation techniques for the texts: "ligamentous injury," "ankle," and "chronic."

Results: An ankle sprain, which is particularly prevalent in athletes and in those who lead active lives, is an injury that is produced, in most cases, by the eversion or inversion of the foot as a result of fast and forceful movements, with or without tearing of the ligaments (BARONI, 2010). An ankle sprain can occur with or without tearing of the ligaments. Acute ankle ligament injuries are common, with injuries to the lateral ligament complex being the most prevalent. The bone structure of the ankle joint provides stability in a neutral state. Compressive pressures applied in the weight-bearing posture increase the stability of the bone. The majority of ankle lateral ligament injuries heal on their own with conservative care, and in many instances, this type of care results in mechanical stability of the joint (LYNCH, 1999). On the other hand, persistent problems after ankle ligament injuries are not uncommon. After both conservative and surgical treatment, 10% to 30% of patients with lateral ligament injuries may experience chronic symptoms (Lynch, 1999).

Conclusion: By comprehending the various treatment modalities, it is clear that while cases of chronic ligament injuries to the ankle require surgical intervention in acutely serious cases, cases of more extensive injuries over the course of time indicate the need for different treatment modalities in order to prevent the patient's instability and progression.

Keywords: *ligament injury; ankle; chronic injury.*

I. Introduction

Understanding the fundamentals of chronic ligament injuries to the ankle is essential (AMODIO, 2013). These injuries occur when there is damage or weakening and can result from frequent or unresolved injuries. Typically, repetitive ankle sprains lead to chronic ligament damage. Ligaments, which are fibrous fibers that link bones, provide joint stability. The anterior talofibular ligament and the calcaneofibular ligament are the two ligaments most frequently injured in the ankle. Without medical attention or follow-up after an accident, the ligaments' natural ability to repair is greatly hampered, and the scar tissue that forms is often brittle or irregular, leading to a chronic and unstable condition (MARTINS, 2020). The treatment for this kind of damage includes conservative treatment as well as chronic treatment, which are the two types of treatment that hover over the most significant issues and situations. It is acknowledged that surgical procedures are for more serious situations where instability continues despite conservative treatment (AMODIO, 2013).

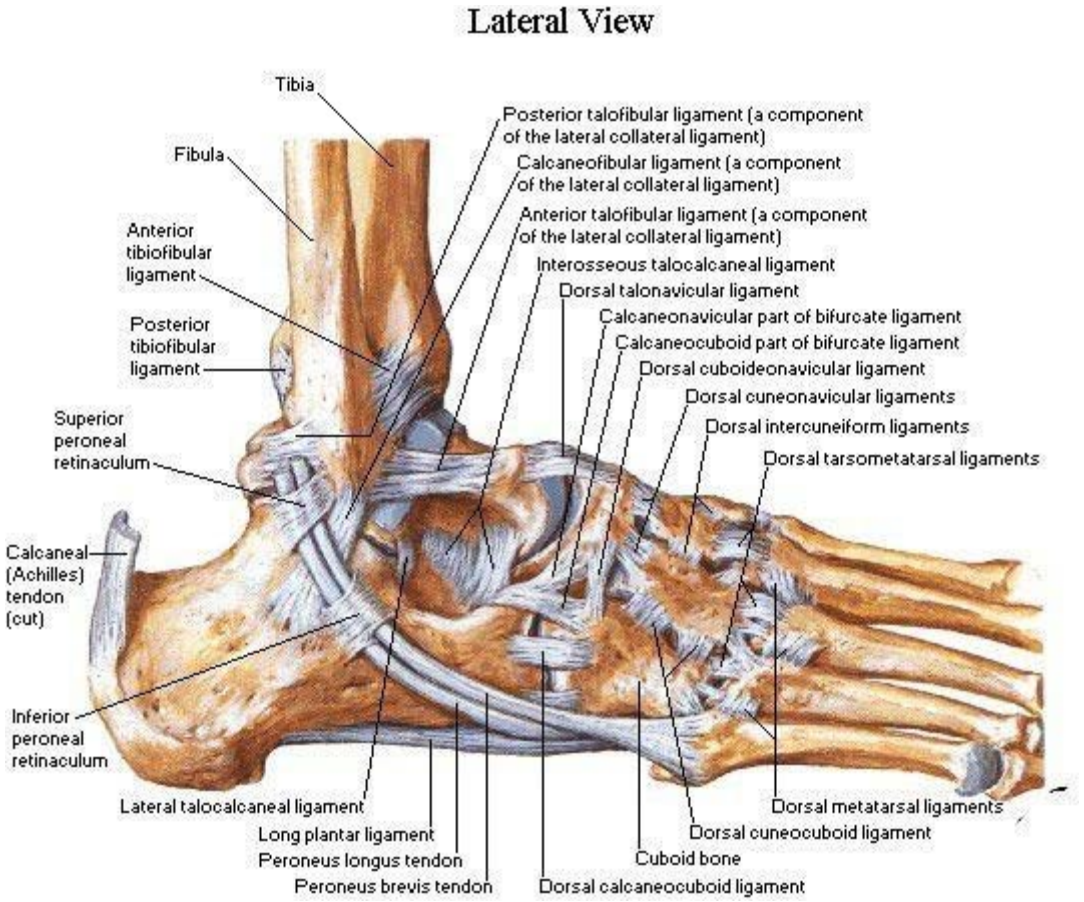

Figure 1: Ligament View, Netter 2019

II. Methodology

This study is a literature review whose bases were taken from the SciELO andPubMed data platforms. The research period was July 2023, meeting the inclusion criteria of articles from the years 2000 to 2023, in Portuguese and English, online texts, and full texts. As strategies for better evaluation of the texts, the following health descriptors (DeCS) were used: "Ligament injury", "Ankle" and "Chronic".

III. Results and Discussion

Ankle sprains are common injuries among athletes and those who lead busy lives. It typically results from the foot being forced in or out suddenly and violently, and ligaments may or may not be torn (BARONI, 2010).

Acute ankle ligament injuries are frequent, with injuries to the lateral ligament complex being the most frequent. The ankle joint's bone structure provides stability in the neutral position. Compressive pressures in the body-loaded position improve bone stability. According to LYNCH (1999), the majority of lateral ankle ligament injuries heal on their own with conservative care, and according to AMODIO (2013), conservative care frequently results in mechanical stability of the joint. However, after ankle ligament injuries, lingering issues are not uncommon. After both conservative and surgical treatment, 10% to 30% of patients with lateral ligament injuries may experience chronic symptoms (Lynch, 1999).

Chronic ankle instability brought on by lateral ligament complex injury sequelae is rather uncommon and most frequently seen after an acute ligament injury that was probably not well handled (CILLO, 1996). Other issues, such as stress fractures (especially Jone's fracture), osteochondral fractures, osteochondritis dissecans, midfoot sprains, tendinitis, or subluxation of the peroneus muscles, should be taken into consideration in individuals with persistent issues or unique symptoms (Lynch, 1999).

Six months after receiving treatment for acute ligament damage, some individuals may experience discomfort or instability. Chronic instability, osteochondral lesion, impingement with distal tibio-fibular inflammatory process, and anterior impingement with exostosis are the various associated ailments that might occur, usually in decreasing order of frequency (GUIDELINES, 2008). Sistent synovitis or tendonitis, ankle stiffness, swelling, pain, muscular weakness, and repeated misalignments are among the typical symptoms. The instability of the ankle is a common factor in many of these issues. It's critical to recognize the difference between mechanical and functional ankle

instability. Mechanical instability refers to abnormal laxity of the ligament stabilizers, and functional instability refers to normal but abnormally functioning ligament stabilizers with recurrent episodes of misalignment. Isolated mechanical instability is of minimal clinical importance, but often mechanical and functional instability occur together. It is also important to consider the subtalar joint as part of the cause of instability (Lynch, 1999). Conflict syndrome is frequently present in people with CTI who have chronic pain, which affects about 60% of them. Failure to effectively treatmay cause an inflammatory process to develop, which will then cause the creation of scar tissue that will occupy the area between the ligaments of the CLL (meniscoid lesion), perhaps causing local pain and inflammation to worsen (MARTINS, 2020).

It is challenging to distinguish between lateral ankle ligament instability and subtalar instability, and these issues might coexist. Chronic occurrences of ankle misalignment during physical activity, together with a history of repeated injuries and/or discomfort, edema, and stiffness, are symptoms of both conditions (Lynch, 1999).

Misdiagnosis regarding the severity of the injury, as well as patient omission of their injury, can lead to inadequate treatment and consequently chronic instability of the ATPA (CILLO, 1996). Ligament injuries are classified according to severity into grade 1, stretching of the affected ligament, and grade 2, partial injuries, without joint instability. Complete injuries are classified as grade 3, when joint stability is impaired (AMODIO, 2013).

The main goal of ankle sprain treatment is to prevent chronic ankle instability, which will later lead to fractures, ligament injuries, or both. In order to treat an ankle sprain, physiotherapeutic resources (conservative treatment) are used to promote an early return to daily activities, preventing the patient from undergoing a more aggressive surgical procedure (CRISTINA, 2001).

For the treatment of grade I and II lesions, the prognosis is excellent. Resources are used to reduce edema, such as cryotherapy, bandages, and limb elevation, followed by a period of immobilization with bands or orthoses. Subsequently, with the reduction of pain, flexibility movements begin with progressive load and proprioception (CRISTINA, 2001).

In grade III sprains, both conservative and surgical treatment are used, depending on the clinical picture. Conservative treatment is based on the use of cryotherapy, bandaging, positioning, and early mobilization. Surgical treatment consists of ligament sutures or ligament reconstruction, according to the level of rupture and joint instability (CRISTINA, 2001).

Although anamnesis and a physical exam are crucial for making a diagnosis, it's also critical to do an imaging scan to describe the lesions that are present and rule out any related illnesses. Given this, and depending on the objective, we can turn to arthroscopy, ultrasound, MRI, and X-rays taken during load and stress (MARTINS, 2020).

Conservative treatment involves using the RICE concept (rest, ice, compression, and elevation), followed by a brief (1–2 week) period of immobilization, early joint mobilization, a gradual increase in load, and muscle strengthening activities with proprioception. This approach is usually sufficient for patients to resume their daily and sporting activities once the injury is healed. When conservative treatment does not have the desired results, or in the case of a high-level athlete, surgical treatment should be considered (MARTINS, 2020).

The need for and duration of immobilization depend on the degree of injury. A grade I sprain does not require immobilization, so we can only recommend the use of an elastic bandage fora few days. For grade II sprains, more rigid immobilization may be necessary during the first few days until the pain resolves. In cases of fractures or grade III sprains, we must control the range of motion of the joint by applying a plaster cast or immobilizing boot. (MARTINS,2020).

To increase range of motion and lessen the possibility of muscle atrophy, physiotherapy should be started as soon as possible. This should last three to six weeks and consist of proprioception training and range-of-motion activities (MARTINS, 2020). Although there is a lack of literature concerning clinical trials related to the topic in theory, proprioceptive training's responses to stimuli cover physiological effects and provide evidence of its effectiveness in increasing joint stability and neuromuscular and balance control (ROCHA, 2023).

Final Consideration

It is clear from understanding the various treatment modalities that cases involving more extensive injuries over time necessitate different treatment modalities in order to prevent the patient's instability and progression of their ankle ligament injuries, which are chronic in nature and necessitate surgical treatment in severe cases.

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Profile of Work Accidents in the Building and Public Works Sector BTP about 8 Companies in Conakry

By Habib Toure, Bocar Baïla Diédhiou, Cheik Amadou Toure & Armandine Eusebia Roseline Diatta

Summary- *Introduction:* The building and civil engineering sector is a vast one, encompassing a wide range of activities including the construction, repair, renovation and demolition of structures

In the course of their activities, workers are subjected to a variety of exposures, including dusts and fumes, asbestos, uncomfortable postures and heavy loads,

Methodology: This was a descriptive and analytical cross-sectional study lasting seven (07) months, from November 25, 2020 to June 27, 2021.

The city of Conakry served as the setting for the study. The material consisted of workers on construction sites.

Keywords: *profile; work accident; building and public works; company.*

GJMR-B Classification: *NLMC Code: WA 100*

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Habib Toure [α], Bocar Baïla Diédhiou [σ], Cheik Amadou Toure [ρ] & Armandine Eusebia Roseline Diatta [ω]

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The city of Conakry served as the setting for the study. The material consisted of workers on construction sites.

Results: This descriptive and analytical cross-sectional study was carried out in eight construction companies over a 7-month period from November 25, 2020 to June 27, 2021.

The majority of workers (94.5%) were employed on construction sites.

Accidents occurred most frequently in the afternoon and morning, with 55% and 43.75% respectively.

Conclusion: Accidents in the construction sector represent a real occupational health problem. Of the 400 workers who suffered an accident, 40% were under 25 years of age; around 30% had a secondary education; 52.3% did not have sufficient PPE; 80% of accidents were caused by inappropriate gestures and 99.5% had received no safety training.

Keywords: profile; work accident; building and public works; company.

I. Introduction

The building and civil engineering sector is a vast one, encompassing a wide range of activities including the construction, repair, renovation and demolition of structures [1].

Regardless of the cause, an industrial accident is considered to be any accident that occurs to a worker as a result of or in the course of work, whether or not the worker is at fault.

- An accident to an employee during the journey to and from work is also considered an accident at work:
- The employee's principal residence, a stable secondary residence or any other place to which the employee habitually travels for family reasons, and the place where the employee performs his or her work or receives his or her remuneration.
- The place of work and the restaurant, canteen and, in general, the place where the worker usually takes his meals, provided that the journey has not been interrupted or diverted by a reason of personal interest or independent of the employer;
- Accident to a worker during a journey, the cost of which is borne by the employer [2].

In the course of their activities, workers are subjected to a variety of exposures, including dusts and fumes, asbestos, uncomfortable postures, heavy loads, harsh weather conditions, working at heights, noise and tool vibrations, to name but a few. The causes of accidents and illness in this sector are well known, and almost all of them are avoidable

However, this sector remains at high risk of occupational accidents leading to work stoppage, loss of productivity, permanent disability and even death [3].

According to the ILO, in 2020, 23,846,159 non-fatal accidents occurred in industries in 71 countries. The construction sector alone is responsible for almost 13% of these accidents [4].

In France, a 2010 study by Tissot C. on the analysis of accidents in the building and civil engineering sector reported that 4,385 accidents occurred in the building and civil engineering sector, i.e. 29% of all recorded accidents between 1991 and 2008.

In Morocco, in 2018, Hami H et al. reported 305 work-related accidents, or 26.2%, between 2008 and 2009 in their study of construction and public works accidents in Morocco [5].

In Senegal in 2018, Dia SA et al. reported in their study on the characteristics of occupational accidents and the fate of victims, that the building and civil engineering sector was the biggest source of occupational accidents, with 22.6% of occupational accidents reported between 2002 and 2006.

It was against this background that we initiated this study, the general aim of which was to assess the factors contributing to occupational accidents in the building and civil engineering sector [6].

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Author σ Ω: Department of Occupational and Legal Medicine/FMPO/ UCAD, Senegal.

II. Methodology

Setting: the city of Conakry served as the setting for this study.

Material: workers on construction sites in Conakry.

Selection criteria

Inclusion criteria: workers who had suffered a work-related accident on site and who agreed to participate in our study were included.

Non-inclusion criteria: workers who had suffered accidents unrelated to construction activities were not included, nor were workers who were absent during the survey period.

Data entry and analysis: our data were analyzed using epi-info software version 7.2.2.1.6.

Ethical considerations: workers were included on the basis of free and informed consent; anonymity and confidentiality of data were respected.

III. Results

Table I: Distribution of workers by nature and site of injury

Variables		numbers (N=400)	Percentages (%)
Nature of injury	wounds	350	87,5
	Burns	4	1,0
	bruises	36	9,0
	Muscle pain	5	1,3
	Fractures	4	1,0
	Eye injury	1	0,2
Site of injury	Upper limbs	182	45,5
	Lower limbs	178	44,5
	Abdomen	2	0,5
	pelvis	6	1,5
	skull	20	5,0

Table II: Socioprofessional data

Characteristics	Number (N=400)	Percentages (%)
Age groups		
15 à 25	163	40,75
26 à 35	135	33,75
36 à 45	78	19,5
46 à 55	24	6,0
Average age: 28,9975	Extrême : 15 years and 55 years	
gender		
male	400	100,0
Marital status		
Single	215	53,8
Maried	195	46,2
Education level		
Noschooling	121	30,2
Primary	78	19,5
Secondary	166	41,5
higher	35	8,8
Vices		
smoking	318	79,5
alcohol	21	5,25
Indianhemp	2	0,5
Alcohol + Tobacco	7	1,75
none	59	14,75
Profession		
bricklayers	141	35,2

Table III: Distribution of workers by nature and site of injury

Variables		numbers (N=400)	Percentages (%)
Nature ofinjury	wounds	350	87,5
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Site of injury	Upperlimbs	182	45,5
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	Abdomen	2	0,5
	pelvis	6	1,5
	skull	20	5,0

Tableau IV: Repartitions en function des moyens de prevention existants

Moyens	**Effectif (N)**	**Pourcentage(%)**
Protection collective		
Chantier	**N=33**	
Suffisants	32	97
Insuffisants	1	3
Formation sécurité	**N=400**	
Reçus	2	0,5
Non reçus	398	99,5
Protection individuelle		
Suffisants	191	47,8
Insuffisants	209	52,2
Surveillance médicale		
Oui	0	0,0
Non	400	100,0

IV. Discussion

The majority of workers (94.5%) were employed on building sites.

Tissot C. in 2010 in France [6] reported that 73% of accident victims worked in the construction industry.

Growing real estate development would seem to justify this result.

Most accidents occurred in the afternoon and morning, with 55% and 43.75% respectively.

Dia SA et al. in 2018 in Senegal [7] reported 44% of accidents in the morning and 26.7% in the afternoon.

Accumulated fatigue due to work in the morning, leading to reduced vigilance in the afternoon, could justify our result.

Accidents were most often caused by workers making inappropriate gestures, with a high frequency of 80% [8].

Dia S.A et al. in Senegal in 2018 had reported that the majority of accidents, i.e. 19.5%, occurred through inappropriate gestures.

Non-compliance with safety instructions by unskilled workers would explain our result.

Building materials were the main causative agents of injuries, with a high frequency with a high frequency of 67.5% [9].

Dia S.A et al. in Senegal in 2018 [3] had reported that 30% of the vulnating agents involved were hand tools.

Inappropriate exposure of construction material would explain our result.

Wounds were the most common type of lesion, accounting for 87.5%.

ABBAS R. A et al. in 2013 in Egypt [18] had reported that the majority of injuries were cuts/lacerations 30.9% and contusions 28.6%.[10].

The frequent handling of certain tools and cutting materials by workers without PPE would explain our result.

Injuries were most common in the upper and lower limbs, with 45.5% and 44.5% respectively. [11]

Chau N. et al. in 2004 in France [15] reported that 40.7% of injuries were located in the upper limbs and 30% in the lower limbs. [12].

The natural position of the limbs as a result of the demands placed on them during work activities would explain our result.

Workers who recovered without sequelae were the most common, with 83.75%.

In 2007, Malle S. in Mali [20] reported 73.09% recovery without sequelae.

This high frequency of healing without after-effects may be due to the low severity of the lesions.

None of the workers benefited from medical surveillance, i.e. 100%.

Adane M.M et al. in 2013 in Ethiopia [13] reported that 90% of victims had received no medical supervision.

The recruitment of workers by companies for work of limited duration and ignorance of the legal predispositions of work would explain our result.

The collective protective equipment in place was sufficient in number on almost all sites.

Almost all sites, i.e. a frequency of 97.73%.

The usefulness of collective protection equipment in construction work could explain this result.

With regard to PPE, more than half the workers did not have enough of it for a frequency of 52.25%.

Mayuri B. et al. 2015 in India [14] had reported that 43.2% of workers had only helmets and 33.2% had no PPE at all.

Ignorance of the protective effect and benefits of PPE would explain our result.

The majority of accident victims (72%) were not wearing PPE at the time of the accident.

Radwa S. et al. in 2020 in Egypt [15] reported that 65.2% of workers were not wearing PPE at the time of the accident.

The majority of construction sites, i.e. 82%, did not have an emergency box.

According to IRIS-ST's 2017 national survey-Artisanal du BTP in France [16], the presence of a first-aid kit in the workplace was reported in 92% of cases. Our result would be due to non-compliance with regulatory measures by health and safety managers on worksites.

The majority of workers had no safety training (99.5%).

Tadesse et al. in 2016 in Ethiopia [17] had reported that 83.7% of workers with work-related injuries had not received safety training on construction sites.

The lack of implementation of training programs for workers to better understand the risks would explain our result.

V. Conclusion

Accidents in the construction industry represent a real occupational health problem. Of the 400 workers involved in accidents, 40% were under 25 years of age; around 30% had a secondary education; 52.3% did not have sufficient PPE; 80% of accidents were caused by inappropriate gestures and 99.5% had received no safety training.

There is a need to promote workplace legislation and regulations.

Further prospective studies need to be carried out to assess environmental safety factors on construction sites and other risk factors (particularly behavioral) for work-related accidents in the building and civil engineering sector.

List of abbreviations

AKC: Agglos Kipe Construction.

AT: Accident at work.

BTP: Building and public works.

CBITEC: China bengbu international technology economic.

CDD: Contrat à durée déterminée.

CDI: Contract for an indefinite period.

CNSS: Caisse nationale de sécurité sociale (National Social Security Fund).

Coll. Collaborator.

EBC: Entreprise Bilama Construction.

ECIED BTP: ENTREPRISE BATIMENT ET TRAVAUX PUBLICS.

EGGC: Entreprise guinéenne de génie civil.

EPI: Equipement de protection individuel.

FSTS: Faculty of Health Sciences and Techniques.
GROUPE GUICOPRES BTP: Building and public works company.
IRIS-ST: Institute for Research and Innovation in Occupational Health and Safety.
J-KARODASE CONSTRUCTION: Construction company.
ILO: International Labor Organization.
UGANC: Université Gamal Abdel Nasser de Conakry.
SO-SAFILS ET AFRICA GERMANI: CONSTRUCTION COMPANY.
SST: Health and safety at work

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Antiepileptic Drugs and the Relationship with the Intestinal Microbiota

By Henrique Hollanda Larangeira, Luciane Alves de Oliveira, Renata Gomes Ramalho dos Santos, Cínthia Pereira Jacomini, Júlia Maria Polastri, Lucca Cardoso Damasceno, Nilcele Freire de Oliveira, Lucas Roberto Araújo Paiva Calabrich, Ana Karla Tenório Holanda, Esther Mendonça dos Santos, Gabriela Tomazini Rodrigues Pereira Amorim, Letícia de Ávila Carvalho, Tamires Santos Pinheiro, Matheus Delgado Lima Teixeira, Maria Luísa Gonçalves Vieira, Thamirys Sartori de Souza & Dra. Aline de Amorim Duarte

Summary- This review of the literature examines the use of antiepileptic medications and how they relate to gut microbiota. Relationships exist between the makeup of the intestinal microbiota and the development and execution of the most fundamental physiological processes. Additionally, it affects the functioning of the central nervous system (CNS) by interacting with the microbiota-intestine-brain axis. The use of pharmaceutical medication is one of the factors that can alter the composition of the gut microbiota. When treating epilepsy, various drug types are used, each with a different mechanism of action. Among the medications in question are topiramate, primidone, phenytoin, carbamazepine, and phenobarbital. The similarity in structure and function between enteric and nerve cells establishes the connection between the brain and the gut.

GJMR-B Classification: *NLMC Code: WL 102*

ANTIEPILEPTICDRUGSANDTHERELATIONSHIPWITHTHEINTESTINALMICROBIOTA

Strictly as per the compliance and regulations of:

Antiepileptic Drugs and the Relationship with the Intestinal Microbiota

Henrique Hollanda Larangeira [α], Luciane Alves de Oliveira [σ], Renata Gomes Ramalho dos Santos [ρ], Cínthia Pereira Jacomini [ω], Júlia Maria Polastri [¥], Lucca Cardoso Damasceno [§], Nilcele Freire de Oliveira [χ], Lucas Roberto Araújo Paiva Calabrich [ν], Ana Karla Tenório Holanda [Θ], Esther Mendonça dos Santos [ζ], Gabriela Tomazini Rodrigues Pereira Amorim [£], Letícia de Ávila Carvalho [€], Tamires Santos Pinheiro [₣], Matheus Delgado Lima Teixeira [₴], Maria Luísa Gonçalves Vieira [₲], Thamirys Sartori de Souza [₳] & Dra. Aline de Amorim Duarte [₫]

Summary- This review of the literature examines the use of antiepileptic medications and how they relate to gut microbiota. Relationships exist between the makeup of the intestinal microbiota and the development and execution of the most fundamental physiological processes. Additionally, it affects the functioning of the central nervous system (CNS) by interacting with the microbiota-intestine-brain axis. The use of pharmaceutical medication is one of the factors that can alter the composition of the gut microbiota. When treating epilepsy, various drug types are used, each with a different mechanism of action. Among the medications in question are topiramate, primidone, phenytoin, carbamazepine, and phenobarbital. The similarity in structure and function between enteric and nerve cells establishes the connectionbetween the brain and the gut. Valproic acid significantly reduced intestinal inflammation in research involving rats with colitis. Its limited ability to treat seizures in these circumstances may be due to the enterocytes limited ability to absorb this medicine. The study came to the conclusion that colitis patients and people with healthy gut, brain, and microbiota interactionstypically respond better to antiepileptics and anticonvulsants than people with imbalances in this axis. These imbalances can result in a lower seizure threshold and an increased frequency of epileptic seizures.

I. Introduction

Through the gut-brain axis, the gut microbiota has the capacity to regulate events involving the Central Nervous System (CNS) as well as fundamental physiological development and function. Communication pathways between the gut microbiota and the brain system aid deta communication. Important participants in this interaction include the Central Nervous System (CNS), Enteric Nervous System (ENS), Autonomic Nervous System, and neuroendocrine channels. The connection between the brain and the intestines has been identified based on the shared physiology of nerve and enteric cells, which show important similarities in their forms and functions. Drug therapy is one thing that has the potential to alter the gut microbiota's composition. The several drug classes that are used to treat epilepsy will be the main topic of this study. Each of these drug classes has a different mechanism of action.

II. Methodology

The current study is a literature review in which the databases were taken from the SciELO (Scientific Electronic Library Online) and PubMed platforms. The research was carried out in July 2023, meeting the inclusion criteria of articles from 2019 to 2023 in Portuguese, Spanish, and English, online texts and full texts, theses, master's dissertations, book chapters, monographs, and literature in magazines and scientific journals. The following health descriptors (DeCS) were used as strategies to evaluate the texts: "Antiepileptics," "gastrointestinal microbiome," and "nervous system."

III. Results and Discussion

The microbiota-intestine-brain axis relates the intestinal microbiota to the operation and growth of fundamental physiological functions, but it can also have an impact on CNS processes. Based on several studies, the microbiome has a significant role in the etiology of epilepsy and in controlling seizures. Therefore, numerous interventions like food, supplements, and even medicine can disrupt the axis involving the central nervous system, microbiota, and gut. To better understand the markers, pathophysiology, and treatment of epilepsy, it is beneficial to look into the outcomes of various therapies. [1]

The afferent and efferent pathways of the nervous system facilitate communication with the intestinal microorganisms. The central nervous system (CNS), enteric nervous system (ENS), autonomic nervous system, and neuroendocrine pathways are in charge of controlling this direct interaction. This connection originates due to the enteric system's regulation of the upper system, which subsequently affects the enterocytes' physiological processes. According to some studies, afferent neurons activated by some of the afferent pathways mentioned above excite brain cells through inflammatory pathways when the gut microbiota isn't functioning correctly due to changes in the enteric system.

Drug therapy is one of the factors that can modify the intestinal microbiota. There are several different types of medications that are used to treat epilepsy, including phenytoin, carbamazepine, phenobarbital, primidone, valproic acid, and topiramate.[3,5]

Phenytoin and primidone seem to have similar effects on the body, as they act by altering ionic conductance, blocking sodium channels, and inhibiting the generation of repetitive action potentials. In addition to reducing the number of times a neuron fires and blocking sodium channels, carbamazepine slows nerve impulse transmission before synapses. According to a recent study, this could intensify the effects of GABA at synapses. Phenobarbital stops the excitatory effects of glutamate, especially those caused by the activation of AMPA receptors, by binding to a GABA receptor site and making it take longer for chloride channels to open. High levels of valproic acid suppress high-frequency neuron firing by inhibiting the GABA-T enzyme, which is responsible for decomposing GABA. Topiramate partly blocks Na+ channels while stimulating postsynaptic GABA-A receptors. [3, 5].

The physiology of neuronal and enteric cells, which are highly similar in structures and functions, is the basis for the established link between the brain and the intestine. This study found that people with colitis or a healthy gut-brain-microbiota axis respond to antiepileptics and anticonvulsants better than those without these conditions. In a study with rats that had been made to get colitis, valproic acid reduced intestinal inflammation by a lot. However, it was less effective at treating epilepsy in these rats, likely because the enterocytes were less able to absorb this drug. As a result, it is thought that restoring balance to the gut flora can alleviate epileptic seizures. [4,6]

Due to the many factors that affect how the disease develops, research on the gut-brain-microbiota axis and the role of intestinal supplements in epilepsy has become more complex. Because of this, the studies that have already been conducted are restricted, and furthermore, a more thorough investigation is required to clarify the actual impacts and the best course of action in these situations. It is crucial to stress that the intestine and its pathological condition can contribute to the illness and should even be treated with medication for the anticonvulsant effects to be satisfactory. Additionally, to better understand this point of view, it is essential to elucidate additional mediators in addition to those already known. [3,6]

IV. Final Consideration

According to the study in the text, valproic acid can dramatically lower intestinal inflammation in rats with colitis. However, it was shown that under these situations, the drug's efficacy in treating epilepsy was reduced, maybe due to its limited absorption by the enterocytes. The authors of the study came to the conclusion that individuals with colitis or those who have a good interaction between the gut, brain, and microbiota react to antiepileptic and anticonvulsant drugs more favorably than individuals who have some type of imbalance in this system. As a result, there may be a reduced seizure threshold and more epileptic seizures. To manage epileptic seizures and enhance treatment effectiveness, restoring the gut microbiota has therefore emerged as a feasible and promising therapeutic approach. Due to the limitations of the present studies, more precise and detailed investigations are required to understand the true effects and the best treatments. Research into the gut-brain-microbiota axis and the role of gut supplements is difficult because of the many factors that affect epilepsy. The disease's gastrointestinal status can serve as a factor, and it may be necessary to treat it to enhance anticonvulsant effectiveness. A more profound comprehension of this perspective requires investigating new mediators.

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Risk Assessment of Noise Pollution in a Cement Plant: Perspectives and Recommendations

By Habib Toure, Diédhiou Bocar Baïla, Toure Cheik Amadou & Armandine Eusebia Roseline Diatta

Abstract- *Introduction:* Noise is an acoustic phenomenon producing an auditory sensation considered unpleasant or annoying. Exposure to high sound levels over 85 dB(A) can affect the auditory system and other extra-auditory systems Our study had the general objective of evaluating the impact of noise related to noise exposure in the Lafarge Holcim Guinea factory.

Material and methods: This was a prospective descriptive study lasting 6 months from March 01, 2022 to September 01, 2022. It focused on the 150 workers at the Lafarge Holcim Guinea plant and their work areas.

Keywords: *risk-noise – evaluation – factory – FSTS.*

GJMR-B Classification: *NLM Code: WA 675*

Strictly as per the compliance and regulations of:

Risk Assessment of Noise Pollution in a Cement Plant: Perspectives and Recommendations

Habib Toure [α], Diédhiou Bocar Baïla [σ], Toure Cheik Amadou [ρ] & Armandine Eusebia Roseline Diatta [ω]

Abstract- ***Introduction:*** Noise is an acoustic phenomenon producing an auditory sensation considered unpleasant or annoying. Exposure to high sound levels over 85 dB(A) can affect the auditory system and other extra-auditory systems Our study had the general objective of evaluating the impact of noise related to noise exposure in the Lafarge Holcim Guinea factory.

Material and methods: This was a prospective descriptive study lasting 6 months from March 01, 2022 to September 01, 2022. It focused on the 150 workers at the Lafarge Holcim Guinea plant and their work areas.

Results: during our study, we recorded 131 workers who met our selection criteria. Our study population was young with an average age of 40.7 years with extremes of 26-53 years. About the measurement 3 areas out of 10 had a noise level above 85 dB(A). The most frequent signs felt during or after work were whistling/buzzing with 55%. Only 48.1% regularly used this PPE and caps were the most used PPE.

Conclusion: at the end of this study, it appears that the workers are mainly exposed to noise and have hearing problems. Despite the availability of PPE, many workers do not use it; however, better communication on the risks associated with noise pollution and the establishment of regular supervision of the correct wearing of PPE would improve the protection and safety of workers.

Keywords: risk-noise – evaluation – factory – FSTS.

I. Introduction

Noise is an acoustic phenomenon producing an auditory sensation considered unpleasant or annoying [1]. It is a nuisance present in many economic sectors and professional activities. In most industrial sectors, noise is a determining factor in working conditions, employee health and company performance [2].

Exposure to high noise levels can affect the auditory system and other extra-auditory systems. The auditory effects of noise damage include post-traumatic deafness, auditory fatigue and occupational deafness [3].

As for extra-auditory damage, generally linked to chronic exposure, it is attributed to the stressful effect of noise and can also impair our attention span, degrade the quality of communication, and even impair quality of life [4].

According to the WHO in 2017 in World Hearing Report one in four people, will suffer from hearing loss to varying degrees by 2050[5].

In Canada in 2010 in Noise from Machinery in the Workplace, around 9,000 workers developed some form of hearing impairment, caused by overexposure to noise in the workplace [6].

In the United States, according to the ILO, 9 million workers are exposed to daily levels of 85 dB(A), and 5.2 million of these come from manufacturing industries [7].

The European Agency for Safety and Health at Work states that the cost of hearing loss accounted for around 10% of the total cost of occupational diseases between 1999 and 2000 [8].

The Sumer 2010 survey in France on long-term exposure of more than 20 hours a week to high levels of 85 dB(A) concerns 4.8% of employees. The sectors most concerned are industry (16.8%) and construction (10.5%)[9].

In Tunisia in 2011, Habib Nouaigui and Coll reported that around 25% of the working population is exposed to high noise levels exceeding 85 dB.

In Côte d'Ivoire, decree no. 01164 of November 04, 2008, sets national environmental standards for noise exposure levels in industrial zones at 75dB(A) during the day and 60dB(A) at night.

The risk assessment process identifies workstations at risk and the equipment that is the main source of noise. In the field of acoustics, risk assessment can start with a sound level estimate, followed by noise measurement, as per ISO 9612.

It was in this context that we initiated this study, the general aim of which was to assess the impact of exposure to noise.

II. Methodology

Study setting: our study setting was the Lafarge Holcim Guinea plant.

The plant covers an area of 5.04 km2 and consists of an administrative building, a refectory, 02 crushers and several material installations.

Our study focused on the employees of the LafargeHolcim plant.

We used the following to collect data:

A pre-established survey sheet including:

Socio-professional data; Workers' medical data; Sound level meter

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III. Methods

Type and duration of study: this was a prospective descriptive study lasting 06 months, from 01 March 2022 to 01 September 2022.

Target population: Our study covered LafargeHolcim employees and their workstations.

Selection criteria

Inclusion criteria: all workers hired by the Lafarge Holcim plant

The following work areas: Storage hall; Bagging area, BULK loading area, Maintenance workshop; Power station, Mixer operator, Laboratory, Weighing operator, Shipping area, Unloading area.

Non-inclusion criteria: Hygiene and administration workers were included.

Our variables were qualitative and quantitative, consisting of socio-professional data such as Age - Sex - Plant employee - Job position Seniority at job position - Marital status - Level of education.

Ethics and Deontology: the anonymity of plant employees was respected, and their informed consent was requested. Confidentiality was respected; the data collected was used exclusively for scientific purposes.

IV. Results

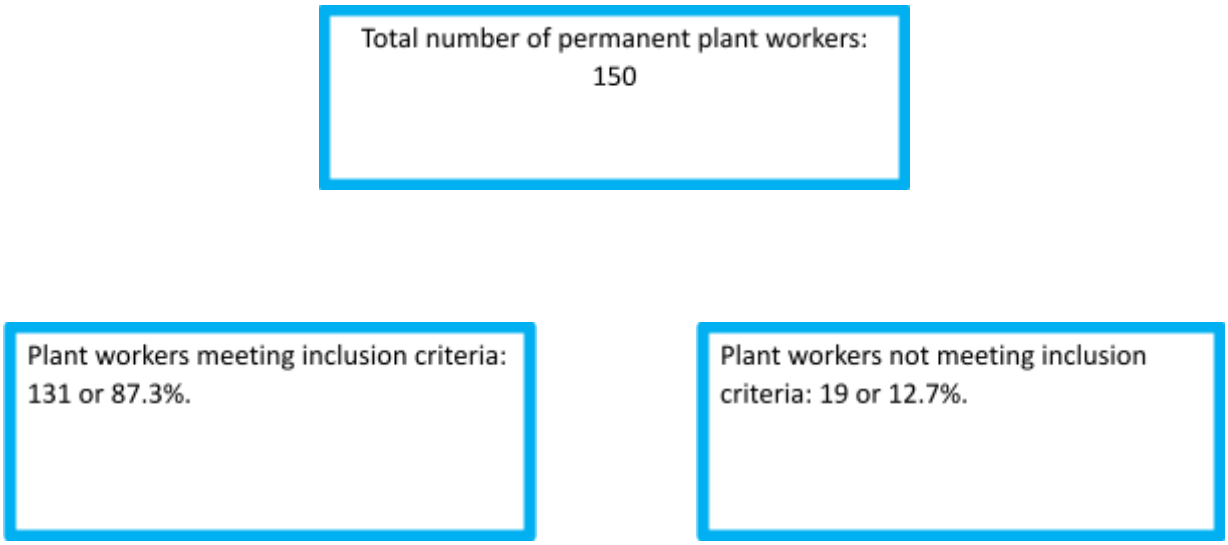

Figure 1: Distribution of workers according to selection criteria

Table I: Distribution of workers according to work area measurements

Zone de travail	Lex,08h dB	Number (n=104)	Threshold	Percentage
Storage hall Milling	96,6	15	Danger	14,4
Laboratary	65,5	6	Low risk	5,8
Maintenance workshop	66,6	53	Low risk	50,7
Mixer operator	82,3	3	Warning	2,9
Bagging area	86,7	5	Danger	4,8
Power station Generator	75	4	Low risk	3,8
BULK loading	88,7	6	DANGER	6,1
Weighbridge operator	55,2	3	Low risk	2,9
Shipping	76,1	7	Low risk	6,7
Unloading	55,4	2	Low risk	1,9
Average:: 71,3 dB(A)		Standard deviation: 25 dB(A)		Extrêmes : 55,2 qnd 96,6 dB(A)

Table II: Distribution of workers according to PPE use

PPE use	number (n)	Percentage (%)
Regularly	64	48,9
Sometimes	42	32,1
Not at all	25	19
Total	**131**	**100**

Table III: Distribution of workers by type of PPE used

Type of PPE used	Number (n)	Percentage (%)
Caps	87	66,4
Helmets	5	3,8
Not at all	39	29,8
Total	**131**	**100**

Table IV: Distribution of workers according to signs experienced

Signs experienced	Number (n)	Percentage (%)
Whistling/ringing	11	55
Headache	4	20
Sleep disturbance	3	15
Dizziness	2	10
Total	**20**	**100**

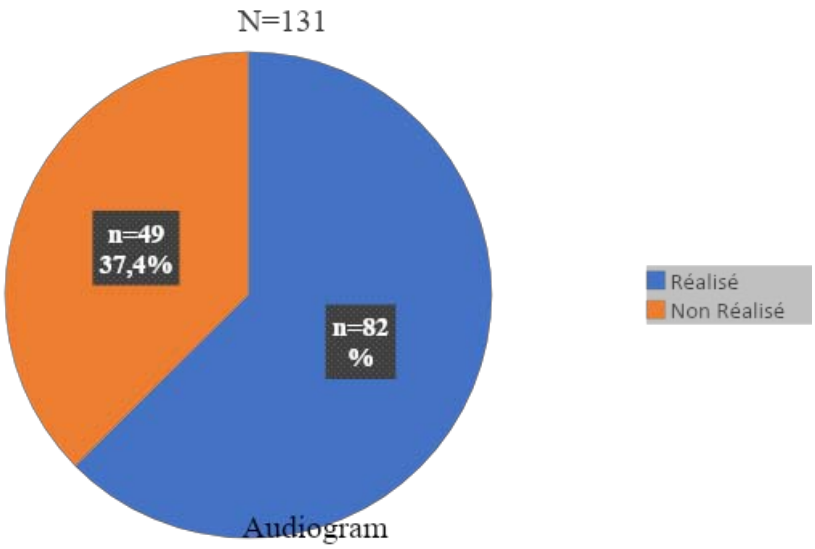

Figure 2: Breakdown of workers by audiogram

V. Discussion

In our series, the average professional seniority was 12.06 years.

The highest proportion was over 10 years, at 51.1%.

Jb.Pelletan et al [10] in France in 2018 in their work on the evolution of noise exposure in employees followed by audiometry between 1968 and 2000 reported that the average professional seniority was 14.4 years.

Tamene A. et al [11] in Ethiopia in 2020 in their study of musculoskeletal disorders and associated factors among vehicle repairers in Hassa City showed that 52.6% of body-painters had an occupational seniority of 5 to 15 years.

The good qualification of the employees, the type of contract and the social insurance and pecuniary benefits linked to the contract would justify these results. Work zone measurements ranged from 55.2 to 96.6 dB, with a mean of 71.3 dB and a standard deviation of 25 dB. 3 zones out of 10 had sound levels exceeding 85 dB, 1 zone had a sound level between 80-84 dB and 6 zones out of 10 had a sound level below 80 dB.

Tchicaya A.F. et Coll in Côte d'Ivoire in 2011[12] reported sound levels ranging from 80.3 to 101.3dB. Noise emitted by the roasting workshop, grinder and platform reached 101.3 Lex.08h (dB) in 2008 and 99.7 Lex.08h (dB) in 2010 respectively.

Dia S.A. et al [13] noise levels exceeded 85 dB(A) in all areas except the laboratory, the storage area, the micro-packaging room, the flour store and the production manager's offices.

In some work areas, noise levels exceeded the set standards, exposing plant workers to various noise-related risks: auditory (hearing fatigue, reduced hearing acuity, deafness), extra-auditory stress-related (hypertension, sleep disturbance, impaired concentration and quality of life).

In terms of frequency of use, 48.9% of workers wore anti-noise Epi regularly, and the most frequently used type of PPE was earplugs.

Dia S.A. et al [13] in Dakar in 2014 in Evaluation des risques professionnels chez les travailleurs dans une meunerie showed that 45.45% of workers regularly used anti-noise PPE.

Hinson A.V. et al [14] in Benin in 2017 Evaluation of noise nuisance among workers in a steel production company reported that 21% of workers regularly wore hearing protection equipment.

Amadou Oury [15] in Guinea in 2020 in Evaluation des nuisances sonores chez les travailleurs de la SOGEAC found that 74.56% of workers used earplugs followed by 25.44% using helmets.

This result shows that, despite the CHS's efforts to raise awareness of the need to wear anti-noise PPE, many employees are not using them. This would be detrimental to their hearing health.

In addition, workers' preference for earplugs may be linked to the fact that they are lighter and more compatible with other PPE, and thus meet noise attenuation requirements.

The most common clinical manifestations were whistling/ringing (55%), followed by headaches (20%) and sleep disturbance (15%).

Nicolas Derumaux et al [13] in their 2013 study of airport noise in France reported 37% tinnitus, 18% hearing loss and 7% vertigo at the end of a working day.

According to the literature, prolonged exposure to noise leads to clinical manifestations of repeated acoustic trauma, otosclerosis and vestibulocochlear nerve damage.

The audiograms carried out showed that 25.6% of workers had an abnormal audiogram, i.e. one worker in 4 had an abnormal audiogram.

Hinson A.V. et al [14] showed that 26% of workers' audiograms were abnormal.

Arip Amel Ep et al [15] in Algeria in 2011 in their study Evaluation of average hearing loss among workers in an Electrical Household Appliances industry found that 20.2% of workers had hearing loss.

Exposure to noise in different departments at sound levels exceeding 85dB (A) such as (Grinding area, Bagging machine, Bulk loading) are harmful to the auditory system and can lead to hearing deficits ranging from hypoacusis to deafness. In our context, this exposure combined with failure to wear PPE could explain the proportion of workers with abnormal audiograms.

Workers with bilateral hearing impairment were the most represented (42.9%), followed by unilateral hearing impairment (OG: 33.3% and OD: 23.8%).

Sensorineural hearing loss accounted for 61.9% of abnormal audiograms, followed by conductive hearing loss at 28.6%, and mixed hearing loss was the least represented at 9.5%.

The study carried out by the Observatoire Régional de la Santé de Midi Pyrénées in Enquête Audience in 2010 among young people aged 16-25[51] reported that hearing losses greater than 20 dB were located in the left ear (OG) with a frequency of 36.1%, followed by 34% in the right ear (OD) and 29.9% were bilateral.

Bachy A. et al [16] in France in 2014 showed in their study Evaluation of a rapid audiometric screening test (DARDA) reported that 15 out of 35 patients had sensorineural hearing loss (42.85%).

The occurrence of these different types of deafness can confirm the negative effect on the ENT sphere. These include presbycusis, damage to Corti's apparatus (barotrauma) and auditory nerve disorders (acoustic neuroma).

In terms of hearing loss, 66.7% of audiograms revealed mild hearing loss, 23.8% moderate and 9.5% severe.

Chakroun A. et al[17] Tunisia in 2013 showed in their work "Evaluation of occupational deafness in a department of southern Tunisia" that 38.5% of workers had mild deafness and 48% had moderate deafness.

High noise exposure, ototoxic drugs (Gentamicin, Streptomycin, Cis platinum and Quinine) and certain pathologies such as Meniere's disease could explain these results.

VI. Conclusion

Exposure to noise represents a real risk in the workplace. Workers at the LafargeHolcim plant are

highly exposed to it; hearing loss was mainly sensorineural, with a frequency of 61.9%.

48.9% of workers regularly used noise protection equipment; 66.4% of PPE used was earplugs.

In addition to the effects on the auditory system, noise has an impact on extra-auditory systems, such as impaired communication and attention.

However, noise mitigation measures must be implemented and reinforced to limit the risk and avoid these effects.

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Comparative Efficacy, Safety and Cost Analysis of Amisulpride vs Olanzapine for Treatment of Schizophrenia

By Harsh Bansal, Nishita Gandhi, Vidhu Arora, Shahpoor Shirzada, Sinchana S Kadur, Donald D Savariah, Haritha Harikrishnan & Falaq Fida

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Abstract- Schizophrenia is a psychiatric disorder associated with a range of psychological, behavioural and cognitive problems especially. Nowadays, atypical antipsychotics are the mainstay for the treatment of shizophrenia. Among them amisulpride and olanzapine are the most commonly used atypical antipsychotics. The objective of this study is to compare the efficacy, safety and cost analysis of amisulpride vs olanzapine for the treatment of schizophrenia. It is a double blind, randomised control clinical trial conducted over a period of 12 weeks. A total of 90 patients were included which were randomly divided into two groups. Group A consisting of 39 patients who received amisulpride tablet(400mg/day) and group B consisting of 38 patients received olanzapine tablet (10mg/day). The brief psychiatric rating scale (BPRS) was taken as main evaluation parameter for the effectiveness of treatment.

Keywords: schizophrenia, amisulpride, olanzapine, atypical antipsychotics.

GJMR-B Classification: NLM Code: WM 203

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Harsh Bansal [α], Nishita Gandhi [σ], Vidhu Arora [ρ], Shahpoor Shirzada [ω], Sinchana S Kadur [¥], Donald D Savariah [§], Haritha Harikrishnan [χ] & Falaq Fida [ν]

Abstract- Schizophrenia is a psychiatric disorder associated with a range of psychological, behavioural and cognitive problems especially. Nowadays, atypical antipsychotics are the mainstay for the treatment of shizophrenia. Among them amisulpride and olanzapine are the most commonly used atypical antipsychotics. The objective of this study is to compare the efficacy, safety and cost analysis of amisulpride vs olanzapine for the treatment of schizophrenia. It is a double blind, randomised control clinical trial conducted over a period of 12 weeks. A total of 90 patients were included which were randomly divided into two groups. Group A consisting of 39 patients who received amisulpride tablet (400mg/day) and group B consisting of 38 patients received olanzapine tablet (10mg/day). The brief psychiatric rating scale (BPRS) was taken as main evaluation parameter for the effectiveness of treatment. The cost for each line of treatment was also calculated at the end of 12 weeks. Both drugs show equivalent efficacy in improving psychotic symptoms on BPRS scale. In both groups no major adverse effect was seen except that olanzapine group showed significant weight gain. Amisilpride treatment is more expensive as compared to olanzapine treatment. Olanzapine should be used for poor Indian patients whereas amisulpride should be preferred in patients who can afford the treatment or having any kind of co-morbid condition for treatment of shizophrenia in Indian population

Keywords: schizophrenia, amisulpride, olanzapine, atypical antipsychotics.

I. Introduction

Schizophrenia[1] is a chronic psychiatric disease characterised by variety of symptoms such as hallucinations, delusions, altered speech, cognitive decline and impairment in perception of reality. It is a chronic disease but with early onset which significantly decreases the quality of life and productivity of patients. Prevalence of shizophrenia worldwide[2] is approximately 24 million people and in India it affects more than 3 million people. The prognosis of disease is generally not good. Typical and atypical antipsychotics are used for the treatment of disease. Typical antipsychotics have low efficacy for treatment of symptoms and also have a lot of adverse effect therefore, atypical antipsychotics are preferred nowadays over typical antispycotics. Amisulpride and olanzapine are among the most commonly used antipsycotics[3]. Amisulpride is a relatively new drug in India as compared to olanzapine.

Both drugs works by blocking different group of receptors. Amisulpride has affinity for D2 and D3 dopamine receptors[4] which helps in relief of both positive and negative symptoms with less extrapyramidal symptoms whereas olanzapine has affinity for 5HT2 and D2 dopamine receptors[5] which helps in improving psychotic symptoms.

We have conducted a 12 week double blind, randomised clinical trial to compare the efficacy[6], safety and cost of the amisulpride and olanzapine for treatment of schizophrenia. As cost of treatment is an important factor in india, we have done the cost analysis of both the treatments to help determine the treatment of choice for patients of schizophrenia.

II. Methodology

This was a double blind randomised clinical trial conducted in the medicine department of pacific medical college and hospital. The study was conducted according to good clinical practice guidelines (ICMR)[7]. The informed consent was taken from each patient. Patient inclusion criteria includes all diagnosed cases of schizophrenia according to ICD - 10[8] guidelines between age of 18 to 60 years. Exclusion criteria includes all pregnant and lactating women and patients with any co-morbidity. A total of 90 patients of schizophrenia were included in the study. These patients were randomly divided into 2 groups - group A (39 patients) and group B (38 patients). Group A patients received tablet amisulpride 400 mg/ day whereas group B patients received tablet olanzapine 10 mg / day for 12 weeks. Follow up visits were done at the end of 4th, 8th and 12th weeks. The efficacy of the drug was assessed using the change in the value of BPRS[9] score from the baseline. The safety profile of both the

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Author χ: Kilpauk medical college.
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drugs was assessed by reporting any adverse event, involuntary movement, change in behaviour or weight gain. The cost of the treatment was calculated by adding the cost of medication given per day for 12 weeks. SPSS software was used for statistical analysis. For comparison of means in two groups we used unpaired student t test and for comparison of mean in a singe group we used paired student t test. Repeated measures analysis of variance (ANOVA) test was used for comparison of means of different parameters. P-value was obtained to determine the statistical significance. P - value < 0.05 was taken as significant.

III. Results

A total of 90 patients were included in the study (45 in each group) with baseline parameters as shown in table 1. Out of these 90 patients only 77 (39 in group A and 38 in group B) completed the study (table 2). 3 patients in group A and 2 patients in group B left the study due to unknown reason. 2 patients in group A and 3 patients in group B left the study due to lack of efficacy of treatment and 1 patient in each group left study due to some other reason. 1 patient died in group B during the course of study.

Table 1: Baseline parameters

	Group A	Group B
Age (mean)	32 years.	33 years
Gender (Male/female)	20/19	20/18
Duration of disease	11.0 years	10.5 years
Weight (mean)	53.5 kg	52.9 kg
Mean BPRS score	56.5.	57.5.

Table 2: Study follow up

	Group A	Group B
Total patients randomised	45	45
Patients Completed study	39	38
Patients left study	6	7
Left due to unknown reason	3	2
Left due to lack of efficacy	2	3
Death	0	1
Others	1	1

During the study the BPRS score was collected at the end of 4th, 8th and 12th week (table 3). The mean change in BPRS score in group A was 16.80 and in group B was 15.5. The efficacy of both the drugs was comparable and the difference is not statistically significant.

Table 3: The BPRS score

BPRS score	Group A	Group B
Baseline bprs socre	56.5	57.5
4th week bprs score	48.1	50.3
8th week bprs score	40.1	42.2
12th week bprs score	33.9	35.4

No major adverse effect was seen and only minor adverse effects was see in both line of drugs. Both drugs are comparable in terms of safety profile except that their is significant weight gain seen in olanzapine group. Amisulpride treatment can cost upto 3000 to 3500 INR whereas olanzapine treatment can cost between 800 to 900 INR for 12 weeks of treatment per patient. Amisulpride treatment is more expensive than olanzapine treatment.

IV. Discussion

Most of the studies for the use of both these drugs in schizophrenia patients are conducted on western population. Still very few studies are done for the use of these drugs on Indian population therefore we have done a study which is primarily focused on Indian population[10]. We have compared efficacy, safety and cost of amisulpride and olanzapine for treatment of schizophrenia. Both these drugs are comparable in terms of efficacy. We used BPRS score as the main evaluation parameters for efficacy. Both these drugs also shows an equal improvement in symptoms of disease however both the drugs are helpful in improving positive symptoms more than the negative symptoms. Amisulpride is also helpful in improving the cognitive functions of the brain. No major adverse was seen with both drugs during the Course of treatment except weight gain which is a typical feature of all antipsychotics. However olanzapine group showed much more weight gain than amisulpride group. Difference in weight gain is due to the different receptors that both drugs target. Amisulpride has selective affinity for D2 and D3 dopaminergic receptors on the other hand olanzapine also has affinity for 5HT2 receptors. These drugs can increase the risk of hypertension, diabetes, obesity and cardiovascular disease in later part of life therefore olanzapine should be given carefully in patients having any kind of co-morbidity or obesity. In terms of cost amisulpride is more expensive than olanzapine treatment. Till now most of the studies are conducted in western counties whereas for poor parents in India cost of the treatment and affordability is a major issue. Therefore while deciding the deciding the treatment of choice for schizophrenia patients in India cost of the treatment should also be. Considered along with efficacy and safety of drug. This study will help in deciding the treatment of choice for schizophrenia patients in Indian population. In general Olanzapine can be given to patients who do not have any kind of co-morbid condition whereas amisulpride should be preferred in patients who can afford the treatment or having any kind of co- morbid condition.

V. Conclusion

Both Amisulpride and olanzapine are comparable in terms of efficacy and safety profile except that there is significant weight gain seen with olanzapine. To conclude, olanzapine can be used in the patients who are not having any co-morbid condition whereas amisulpride should be preferred in patients who can afford it or having any kind of co-morbid condition for treatment of shizophrenia in indian population.

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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.
- 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:

- Explain the value (significance) of the study.
- 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.
- 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.
- 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:

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

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.
- In the manuscript, explain each of your consequences, and point the reader to remarks that are most appropriate.
- 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.
- Do not present similar data more than once.
- 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.

- You may propose future guidelines, such as how an experiment might be personalized to accomplish a new idea.
- Give details of all of your remarks as much as possible, focusing on mechanisms.
- 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?
- 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

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