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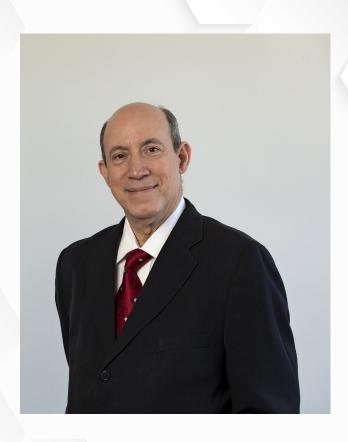


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**IJEResearch** The magazine International Journal of Education and Research, in its first edition, reflects the effort of the iiEP Institute team to organize a magazine that naturally manages to "win the world". The publication in Engli h, the language most used for the dissemination of science, makes us believe that we will be able to show ourselves a little more, taking the quality of our research a little further than usual. Our editorial board strives for the purity and characteristics scientific texts. exploring objectivity, intelligibility, feasibility and reproducibility. So, parsing and releasing texts with minimal confusion and entropy, avoiding the extremes of verbosity. Obeying the ethics of scientific communication, exploring the language resources that language allows. With coherence of ideas and logical reasoning. Presenting results that can and must meet criteria to be reproduced and leading to the same results. Originality is another important point in scientific dissemination. innovation fits into as any discussion. Therefore, IJEResearch commitment to always present the new and current, being a "stone" condition embraced by the editors. I thank the authors who sent us the first articles to be published, being part of this history, that is, IJEResearch.

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# ANALYSIS OF HYPERTENSIVE PEOPLE UNDER 60 YEARS OF AGE IN THE MUNICIPALITY OF PASSO DE CAMARAGIBE – AL/ BRAZIL, IN THE PERIOD FROM 2015 TO 2017

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#### **Abstract:**

Systemic arterial hypertension is a public health problem in Brazil and the world. The interest in researching the epidemiological profile hypertensives attended at the health unitsenrolled in the Family Health Program, in the city of Passo de Camaragibe, Alagoas / Brazil, came up due to the increasing number of this pathology in the population, especially among young adults. The research aims to analyze the profile of hypertensive patients, with emphasis on the population under 60 years old, in the period from 2015 to 2017, determining the aggravations that most affect this group. The study is bibliographic, documentary, and descriptive, observational, with a quantitative approach. The data were collected in the medical records and registration forms of the six health units of the county. The results showed a relatively high number of young adults with HAS (Systemic Arterial Hypertension), with a higher percentage in the female group, besides a considerable number of hypertensive patients who also present Diabetes, obesity, and cardiovascular diseases associated with HAS. It was observed that the existing public policies in the county are still insufficient, especially when it comes to prevention. In front of this situation, it is suggested to apply some actions to prevent HAS in the young population, as the implementation of a schedule with defined service, educational activities at alternative times, and local activities groups, with the support of the community health agent. Given the profile of this population found in this study, it is necessary to implement these suggested actions to involve more effective assistance to a portion of the economically active and expressive population.

Keywords: Central Nervous System. Lymphoma. Metastasis

#### INTRODUCTION

Systemic Arterial Hypertension (HAS) can be considered a relevant public health problem in Brazil and worldwide. Estimates indicate that its prevalence is on the rise and its impact on populations will be even more damaging in the coming years. The constant analysis and collection of information about this health problem are of fundamental importance for health planners and managers (BOING; BOING, 2007).

HAS is responsible for the origin of many non-communicable chronic diseases, in addition to being a direct cause of hypertensive heart disease, it is a risk factor for diseases resulting from arteriosclerosis and thrombosis, which are predominantly manifested by ischemic heart, cerebrovascular, peripheral vascular, and renal. Due to hypertensive and ischemic heart disease, it is also an etiologic factor of heart failure. Therefore, it characterizes it as one of the causes of greater reduction in the life expectancy of individuals (DUNCAN; SCHIMIDT; GIUGLIANE, 2006).

The number of chronic noncommunicable diseases (NCDs) is growing all over the world and, consequently, the health of populations suffers from thisimpact. Approximately 35 million people died in 2005 from this cause, with 80% of these deaths in low- and middleincome countries. Systemic arterial hypertension (HAS) is one of the most common chronic diseases and with the most serious clinical repercussions. It is estimated that, worldwide, 7.1 million people die annually from high blood pressure, and that 4.5% of the disease burden in the world is caused by HAS. Among the main complications of HAS are acute myocardial infarction (AMI), stroke (CVA), and chronic renal failure (CRF) (BOING; BOING, 2007).

HAS has contributing factors for its appearance in different aspects, such as increased weight gain, lack of physical activity, Diabetes mellitus, as well as being a risk factor for the onset of chronic diseases, especially cardiovascular ones. It reaches people from all economic classes and is reaching an increasingly younger public.

Given these facts, it is important to go deeper into the characteristics of patients with chronic noncommunicable diseases, as a means of finding out about the causes, consequences, treatments, and preventive methods of these diseases. Thus, this work will aim to analyze the profile of

hypertensive patients, with emphasis on the population under 60 years of age, assisted by the ESF (Family Health Strategy), in the municipality of Passo de Camaragibe, determining the health problems in which these hypertensive patients have already been affected. as a result of the underlying pathology.

#### **METHODS**

This study is a bibliographic and documental review, where data were collected through a search in the main health databases, including websites of official bodies. From the survey of information, a descriptive analysis of the indicators of hypertensive patients in the municipality of Passo de Camaragibe, Brazil, can be carried out.

To carry out the analysis, it was verified, through a case history, the number of male and female patients, under the age of 60 years, who were diagnosed with hypertension, between the years of 2015 and 2017, allowing a statistical analysis.

As all hypertensive patients included in the research are monitored by the health units and met the inclusion criteria, who lived in the city, had a diagnosis of hypertension and be monitored by the ESF, and there was no one excluded, as the exclusion criteria were based on users who were still in the investigative process, without a confirmed diagnosis and/or incomplete records, the sample was considered as the total number of hypertensive patients, equal to the population. After applying the inclusion and exclusion criteria, we reached a total sample of 1448 hypertensive individuals. (n=1448).

After authorization from the Municipal Health Department to carry out the research, data collection took place through the analysis of medical records and files of community health agents, which correspond to the register of families enrolled in their microarea, where community agents have control over the hypertensive patients assisted by the health unit. The units have control of their hypertensive patients through registration forms, which contain data such as patient identification and prescribed treatment. Each micro-area is responsible for a community health agent, with a total of 39 agents. The researcher had access to these records at the health units, as each unit has its file.

The municipality has 6 health units, with a

total of 39 community health agents, with the following distribution:

- PSF 1 Health Unit Ciridião Durval Located in the Centro district, comprising seven micro areas, responsible for theassistance of 1149 families. Each microarea has a health agent in charge.
- PSF 2 Health Unit Maria Luiza Durval Localizada no Distrito Barra de Camaragibe, zona rural e litorânea de Passo de Camaragibe, composta por sete microáreas, responsável pelo atendimento de 811 famílias.
- PSF 3 Health Unit Severino Manuel Located in Povoado Jundiá, a rural area of Passo de Camaragibe, composed of five macro-areas, responsible for serving 239 families. Each micro-area has a health agent in charge.
- PSF 4 Health Unit Carlos Souza Silver Located in the Centro district, comprising eight micro areas, responsible for the assistance to 1197 families. Each microarea has a health agent in charge.
- PSF 5 Health Unit Paulo Sebastião dos Santos

Located in Povoado Bom Despacho, a rural area of Passo de Camaragibe, comprising six microareas, responsible for serving 420 families. Each microarea has a health agent in charge.

• PSF 6 – Unidade de Saúde Maria Elisa da Silva

Located in Povoado Unussu, a rural area of Passo de Camaragibe, comprising six micro-areas, responsible for serving 327 families. Each micro-area has a health agent in charge.

The research was based on the consolidation of existing records in each health unit. The researcher sought the records referring to hypertensive patients in each unit, which serve as a control both forhealth agents, who monitor these users Every month, and for health professionals, who attend to them directly at the unit.

The study was submitted for evaluation on the Plataforma Brasil website, approved under opinion number: 2,301,430.

#### **RESULTS**

HAS has contributing factors for its

appearance in different aspects, such as increased weight gain, lack of physical activity, Diabetes mellitus, as well as being a risk factor for the onset of chronic diseases, especially cardiovascular ones. It reaches people from all economic classes and is reaching an increasingly younger public.

The city, even with a profile of a small and rural city, had a considerable number of hypertensive patients, with emphasis on the number of hypertensive patients under 60 years of age, confirming that chronic diseases no longer affect only the elderly, but come reaching many young adults.

Table 1 - Consolidated of all health units. Data was collected between October and November 2017, through the files of the health units themselves.

	PSF*1	PSF*2	PSF*3	PSF*4	PSF*5	PSF*6	TOTAI
N total de hypertensive	360	261	114	445	179	89	1449
Masculine	140	89	40	173	67	32	541
Female	220	172	74	272	112	57	907
hypertensive under 60 years old	160	130	76	177	66	45	1449
hypertensive under 60 years old who have already suffered a stroke**	08 d	00	01	02	05	02	18
hypertensive individual under 60 year of age who have associate DIA***	39	25	09	51	13	04	141
hypertensive individual under 60 year of age who have associate cardiovascula problems	03 ed	04	03	03	00	01	14
hypertensive individual under 60 year of age who are obese	rs 04	09	05	07	11	01	37

<sup>\*</sup>PSF: Family Health Program, referring to each health unit.

The survey managed to reveal that females have a higher number of hypertension compared to men. Among the various factors, the diagnosis in women ends up being faster, because it is a group that attends health units more often.

In a survey in the Rio Grande do Sul - Brazil, it was found that more than 50% of the women surveyed, regarding hypertension,

<sup>\*\*</sup>AVE: Brain strock.

<sup>\*\*\*</sup>DIA:Diabetes mellitus.

were aged between 20 and 39 years, and that more than half of these women (51%) had at least one of the hypertensive parents (HARTMANN et al., 2007).

In the research carried out by Boing and Boing (2007), it was possible to verify the predominance of women registered in the Hiperdia program, in all age groups, with the greatest difference in age between 40 and 49 years. In the year investigated, 387,754 patients were registered in the System, with 66% (255,830) women and 34% (131,924) men (BOING; BOING, 2007).

In the study by Gomes and Silva (2010), it was proved that a greaternumber of female patients with arterial hypertension can maintain control of the disease. (GOMES; ROCHA E SILVA; SANTOS, 2010).

Another criterion researched was the association of diseases that are usually associated with patientswith Systemic Arterial Hypertension (HAS), such as Diabetes mellitus, cardiovascular problems, and obesity. Of the 654 hypertensive individuals under 60 years of age, 141 have associated diabetes mellitus, with diagnostic confirmation and taking medication; 18 have already suffered a stroke, characterizing the lack of control over this hypertension; 14 use medication for cardiovascular diseases, and 37 have some degree of obesity.

The research also showed that the numbers are similar in all units, being proportional to the population quantity, with no differentiation between rural and urban areas. Both presented considerably high numbers regarding the studied diseases.

Many hypertensive patients in Brazil are still not adequately controlling the disease. It is estimated that 18 million individuals have systemic arterial hypertension, but only 30% are under control, thereby increasing the risk of stroke, Kidney, and cardiovascular diseases (MIRANZI et al., 2008).

Hypertension and Diabetes mellitus are the most common chronic diseases, whose treatment and control require behavioral changes concerning diet, medication intake, and lifestyle (MIRANZI et al., 2008).

According to the SUS (Unified Health System), Diabetes mellitus appears as the sixth primary cause of hospital admissions and contributes significantly (30%-50%) to other causal factors of admission, such as ischemic heart disease, failure heart disease, cholecystography, stroke, and arterial hypertension (LYRA et al., 2010).

CVA is the main cause of hospitalizations,mortalityt,,y and dysfunctionality, surpassing other heart diseases and cancer. Remembering that HAS contributes as the main risk factor for the development of stroke. (MENDONÇA; LIMA; OLIVEIRA, 2012).

Marte and Santos (2007), in their research, cites the study by Framingham, who reports that, among individuals with arterial cardiovascular hypertension, events occurred more frequently in the presence of at least two risk factors, proving that the risk of events is proportional to the aggregation of risk factors. Correlation between lipid profile and systemic blood pressure is also reported, as noted in metabolic syndrome; as this syndrome always associates HAS with abdominal adiposity, hypertriglyceridemia, low HDL-C, and altered fasting glucose, it justifies the higher risk of progression to Diabetes mellitus and cardiovascular disease (MARTE; SANTOS, 2007).

Other factors not detailed in the results, but which should be highlighted, are education and socioeconomic status.

Citing the research by Gomes and Santos (2010), an interesting fact, analyzed by them in their study, was how the level of education influences the control of hypertension. Reaching surprising numbers, fifty percent of uncontrolled patients are illiterate, whereas, among controlled hypertensive patients, the illiteracy rate drops to 19%. Blood pressure control increased in proportion to the level of education, reaching 100% among those with complete secondary education (GOMES; ROCHA E SILVA; SANTOS, 2010).

The growing increase in CNCDs especially affects people with lower income and education, as they are the most exposed to risk factors and with less access to information and health services, further accentuating social inequalities (MALTA; SILVA JR, 2013).

Education is a major factor in the treatment of chronic diseases. According to the 2001 Primary Care Report, treatment adherence tends to be lower in individuals with low education levels, which increases the responsibility of primary care professionals to develop educational activities, with an emphasis on disease control and promotion. of health. Since the lower the level of education, the greater the difficulty in understanding the pathology (MIRANZI et al., 2008).

Another factor that must be taken into account is the socioeconomic status of these individuals, as their lifestyle has a great influence on the effectiveness of the treatment. Socioeconomic status is decisive for non-adherence to treatment, and a low socioeconomic level is related to a higher prevalence of HAS (MIRANZI et al., 2008).

Although the ESF (Family Health Strategy) presents public policies aimed hypertensive patients, being considered by the health units a priority care group, the numbers of primary or secondary hypertensive patients continue to grow, with a consequent increase in the lack of quality of social life and professional, especially when affected in the economically active phase, yet another reason to invest in research aimed at this group. Notably, chronic diseases are at a level of comfort, even for health professionals, and this research serves to boost enthusiasm in caring for people with chronic diseases.

Even though the SUS (Unified Health System) is a free and universal system in Brazil, the individual cost of chronic disease is still considerably high, due to the aggregate costs, which contributes to the impoverishment of families. For the health system, the direct costs of CNCDs (Chronic NonCommunicable Diseases) represent a growing impact. In Brazil, CNCDs are among the main causes of hospital admissions (MALTA; MORAIS NETO; SILVA JUNIOR, 2011)

Despite the rapid growth of CNCDs, through comprehensive and costeffective health promotion interventions, their impact can be reversed, providing reduction of risk actors, improved health care, early detection, and timely treatment (MALTA; MORAIS NETO; SILVA JUNIOR, 2011).

#### CONCLUSION

About hypertensive individuals under 60 years of age, an increase was observed, with a total number of 654 confirmed cases, which is equivalent to 45.17% of the total

number of hypertensive individuals in the city. The study also allowed the identification of hypertensive individuals under 60 years of age and with associated diseases such as Diabetes mellitus (mean 10%), obesity (2.55%), cardiovascular problems (0.96%), and 18 cases of Stroke, which is considered high for a population under 60 years of age, and a short study period, 2 years.

With the collected data, it was possible to determine the diseases whose hypertensive individuals under 60 years of age have already been affected as a result of the underlying disease, extremely relevant information, due to the impact generated on public health programs.

The survey revealed that there is a significant rate of hypertensive individuals under 60 years of age. The number shown symbolizes an alert to the need for closer monitoring of these patients and the development of an action plan that enables a reduction in the picture presented, to imply more effective care for a portion of the economically active and expressive population.

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# MAJOR EVENTS IN BRAZIL: Socioeconomic and cultural developments due to the 2014 World Cup in the Federal District (DF)

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#### **Abstract**

The main objective of this article was to analyze the major events in Brazil, having as a case study the 2014 FIFA World Cup, held in Brasília/DF. The development of this article is in line with interviews with the target audience, which emphasize the participation of researchers, for a better understanding of the context of the chosen city. Among the main results, in addition to conducting field research aimed at residents of Brasília/DF, where data was gathered, thus generating a result about the event. Together with these results and from the point of view of its population, it was verified the legacy that the 2014 COPA event will leave for Brasília after 2014

Keywords: Brasília. Events. FIFA World Cup. Soccer.

#### INTRODUCTION

Presenting yourself to the world in front of a new reality. The image of Brazil as a country needs to expand outside the Rio-São Paulo axis. The federal capital, built in the 20th century, has not yet hosted a large-scale global event.

The World Cup is the opportunity to introduce different cultures and give visibility to the city of Brasília/DF and the Central Plateau, as the city has prepared and transformed to host the event as well as how it has opened up to the world.

This article aims to describe, in particular, the socioeconomic and cultural developments that the aforementioned football championship may provide about the economy, infrastructure, and tourism, among other important sectors, in the city of Brasília/DF.

#### **METHODS**

Descriptive, exploratory research with a qualitative approach was carried out. Initially, a bibliographical review was carried out, raising theoretical conceptions of several authors for a better understanding of the topic at hand.

The next phase included field research carried out with the population of Brasília/DF to obtain data to analyze the impacts of the 2014 FIFA Cup in that city.

The method used for the sample was the non-probabilistic one, being a single purposeful sampling procedure, as the research subjects – the population residing in the city of Brasília/DF – were intentionally chosen, and 20 people participated.

The questionnaire applied presented a total of 10 (ten) questions, divided into 2 (two) parts. The first part collected the informant's profile, consisting of 3 (three) questions in a set of closed-options (dichotomous) responses.

The second part presented 7 (seven) open questions related to the perception of citizens residing in Brasília/DF about the 2014 World Cup for subsequent content analysis (BARDIN, 2004)

#### **RESULTS**

The host city selected for the case study

was Brasília (FIGURE 1), which is the Federal Capital of the Federative Republic of Brazil and seat of government of the Federal District, making it the fourth most populous city in Brazil.

FIGURE 1 - Images from Brasília/DF



Source: Google Imagens (2013)

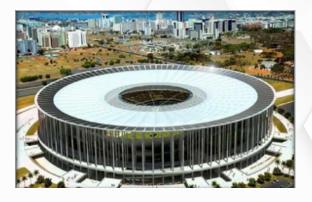
Brasília is located in the Center-West region of the country, along the geographic region known as the Central Plateau. The following is a summary of the main data from the DF:

Table 1 – Summary of the Main Data o DF in the 2010 Census

FEDERAL DISTRICT	
Capital	Brasília
Population estimated 2013	2.789,761
Population 2010	2.570,160
Área (km²)	2.799,999
Demographia Density hab/km²	444,66
Number of municipalities	1

Source: IBGE (2013)

FIGURE 2 Brasília's National Stadium Mané Garrincha



Source: Brasília at the worldcup (2013)

The tourism field, on the other hand, is what will bring more significant changes by placing the DF on the mandatory route for tourism, as it has a differentiated attraction which is its architectural set. And about the hotel sector, Brasília had, in 2010, the number 50 hotels, with a total of 28 thousand beds. To meet the demand for the World Cup, the Financial Supervision and Control Commission, Subcommittee on Supervision of the 2014 World Cup, with their studies, predicted a 20% increase in the number of beds available to meet the demand, which means building and delivering in the minimum more 5,600 beds (BRASIL, 2010).

Currently, the Federal District has 2,606,885 inhabitants and boasts an HDI-M of 0.875, the highest in Brazil, with a GDP of R\$89,630,109.00, which makes it the host of the 2014 World Cup.

As for age, 20 informants divided into groups of four age groups were evaluated: 18 to 30 years; 31 to 49 years old; 50 to 65 years oldand over 65 years old. In the research, the sample equivalent to the 2nd group (TABLE 2) was predominant.

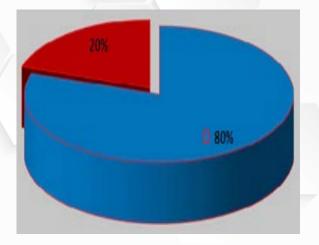
Table 2 – Most frequent age of informants

Age	N° of informants	%
18 a 30 years	5	25
31 a 49 years	10	50
50 a 65 years	3	15
above the 65 years	2	10
total	2	100

Source: Author data (2013)

The sample consisted of 20 volunteers, of which 16 (80%) were male and 4 (20%) were female, as shown below (GRAPH 1).

Graph 1 - Percentage by gender



MasculinoFeminino

Source: Author data (2013)

When analyzing the studied sample about gender, males predominated in this research (80%), despite the methodological care taken to ensure an adequate sample of the population, in disagreement with the results of the research carried out in the same city by Marinho; Hammann and Lima (2007).

Regarding the length of residence in Brasília, the evaluated informants were divided into four groups: 1 to 10 years; 11 to 25 years; 26 to 40 years old and over 40 years old. Samples equivalent to the 2nd and 3rd groups predominated in the research (TABLE 3).

Table 3 – Residence time in the city

<u>%</u>	N° of informants	Age
10	2	1 a 10 years
45	9	11 a 25 years
45	9	26 a 40 years
0	0	above the 40 year
100	· ·	total
	0	•

Source: Author data (2013)

According to (MARINHO; HAMMANN ELIMA, 2007), a characteristic of Brasília is that it has a population originating from different regions of the country. The sampling process that was used in this research guarantees population representativeness for the Federal District.

About the main challenges for Brasília to operationalize a Soccer World Cup with

quality, some answers were selected in which the interviewees answered:

- a) "Mobility, Safety, Health, Communication".
- b) "Improve public transport, airport, security and the city's hotel network".
- c) "Improve the organization, infrastructure, security scheme, traffic, public transport for the event, airport and hotel sector".
- d) "Quality stadiums to host events of this magnitude, that is, with comfort, sufficient and clean restrooms, easy access, numbered seats with reserved tickets, among other things; mobility facility airporthotel, hotel-airport, hotel-stadium, and vice versa, and security so that people feel at ease when moving through the city, without running the risk of being robbed or of any other type of aggression".
- e) "Improving infrastructure, security, transport, and signaling".

It is observed in the volunteers' responses that the item "safety" appears first.

From a socio-economic point of view, some interviewees described the advantages that can be expected for the City of hosting an event such as the Soccer World Cup, such as:

The likely improvements for the population as a whole".

Improvements that will be carried out in the city to support the event, such as Improvement in the hotel network and the Expansion and modernization of the Juscelino Kubitschek International Airport in Brasília, restoration of the city's streets and avenues, Infrastructure works, and actions to encourage local tourism and the training of professionals are also among the investments that are intended to be made".

It will bring benefits to various sectors such as restaurants, hotels, shopkeepers and the generation of several jobs and income for the community".

That there is a legacy for the city in this aspect, that is, after the event, what was invested starts to revert as a gain for society.

For example, the arena is economically exploited for other events (shows, football matches, exhibitions, fairs, etc.); the

transport system remains with the same quality presented during the Cup; the airport will continue to offer the same type of disservice presented during the World Cup and public safety will be permanent, that is, it will not only act in big events".

"Increase in tourism, tax collection, and trade growth".

According to the interviewees' speech, there seems to be a lot of concern for real benefits to occur that serve the population of Brasília. Among the several cited, it is interesting to mention Melo (2011) when highlighting the proposal directly concerning social aspects, for example, the eradication of illiteracy in the territory of the Federal District. By 2014, about 65,000 people are intended to be literate, approximately 3.5% of the population.

Another important social factor raised with the 2014 World Cup is jobs that emerged during the infrastructure works and those that will remain after the event (MELO, 2011).

Regarding the interference of the World Cup in the quality of life of the population of Brasilia, some resident volunteers responded that:

It will increase people's selfesteem in holding and participating in an event of such magnitude".

On the days of the games there will be a worsening of traffic, in addition to political demonstrations that will disrupt the city, but there will be positive points with the improvement of services and quality of restaurants, bars, hotels, cultural attractions, and tours to monuments, and tourist attractions that will be available to the tourists arriving in the capital".

Ribeiro (2012) claims that the 2014 World Cup revealed the need for large investments so that the planned events can take place successfully. In this sense, the construction of several works is planned in Brasília, which are in progress, in the implementation phase or already concluded. Regarding the infrastructure for tourism, today, 50 hotels with a total of 28 thousand beds are available. The forecast is that the offer will increase by at least 20% by 2014 (BRASIL, 2010).

About the considerations about what will be done to facilitate the access of the

population of the City without privileged financial conditions to the event, some selected interviewees answered:

Nothing, at most a few dozen chairs in the worst places".

Following the events of the Confederations Cup held in 2013, unfortunately, I don't believe that anything will be done so that less privileged populations can participate in the 2014 World Cup". In my opinion, nothing will be done, because so far no one has taken any action about it."

This type of event is not made with this population in mind. It is a commercial event, where large sums of money are invested and which the return is sought. Hence, this population will benefit from what is positively the legacy of the Cup: transport, security, employment, etc.".

It was announced in the press that the organization of the Cup will reserve tickets for distribution in schools and public entities".

From the speech of the selected interviewees, it is possible to observe the lack of credibility about the access of low-income people to official games, such as what happened in the 2013 Confederations Cup, in which a large portion of fans from the Brazilian elite.

As for the observations on the interventions that have been carriedout in the current sports infrastructure in Brasília due to the 2014 World Cup, some of the chosen responses were:

That I know, nothing".

Only the construction of the New Football Stadium "Brasilia National Stadium – formerly Mané Garrincha" is the great sporting infrastructure built for the 2014 World Cup, the teams that come here to play should use the sporting establishments that already exist in the city for their training, but nothing is being done for the city's sports infrastructure as far as I know".

"As this is a World Cup event, an ultra-modern stadium was built following the international standard of technology and infrastructure that is already adopted in other international stadiums".

Especially in transport, there should be a large investment, as the city has always

lacked it. Transport in Brasilia is insufficient and expensive. If the number of bus lines and also the number of buses per line are expanded, it is already a beautiful legacy. The subway, as it is more expensive and takes a long time to build, will certainly not undergo any changes".

Many concerns were observed in the respondents' answers regarding the interventions that have been carried out in the current infrastructure in Brasília due to the 2014 World Cup, and not only those related to sports infrastructure.

Informants were asked what they believed would be the main legacies that are being planned for the Federal District after the 2014 World Cup, and the responses selected were:

For now, after the Confederations Cup, I only see the stadium and the hotel chain".

According to Isto é magazine (2013, p.1), "the World Cup plays a vital role in the transformation of the Federal District". A survey carried out by the Getúlio Vargas Foundation estimated at R\$ 4 billion the amount to be spent by Brazilian and foreign tourists who intend to visit the capital during the event.

#### CONCLUSION

The importance of carrying out large events is a window of opportunity for the city or locality that hosts a global event. Brasília showed that it is possible to improve the image of the FIFA World Cup - Brazil 2014 event, even with unfinished or postulated works for dates still uncertain.

In this desideratum, the authorities must think and rethink strategies to reproduce the best way to exposethe city in large events so that the country's image bears good results and can attract tourists, events, and, above all, trade. One cannot give the impression that the investment is wasted on pharaonic or unfinished works, which goes against the auspices of sustainable development in force in today's world.

It should be noted that today's world demands quality practices for major events and the responsibility of the organizers, which is why the opportunity to show Brasília to the world was built on works with a gigantic context that accompany the city's history. However, the debate imposed

concerns the allocation of resources and their destination, which matters in strategic decisions that effectively reach the well-being of the population of Brasilia and not for the simple delight of tourists who bring ephemeral and non-permanent profits to the city from which the legacy can be most questioned.

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PREVALENCE AND FACTORS ASSOCIATED WITH BREASTFEEDING IN THE 1st HOUR OF LIFE AT THE PROFESSOR ALBERTO ANTUNES UNIVERSITY HOSPITAL IN 2017.

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#### **Abstract**

Abstract Breastfeeding in the first hour of life is a key factor in reducing neonatal mortality rates, besides providing an initial contact that favors the establishment of the mother-child bond, bringing physical and psychological benefits to both. The research aims to analyze the prevalence and factors associated with breastfeeding in the first hour of life at the University Hospital Professor Alberto Antunes in the year 2017. The study is a documentary, descriptive with a quantitative approach The result showed that, according to the WHO classification, the rate of breastfeeding in the first hour of life is considered good at the study site. And the factor that has the greatest influence on the accomplishment of this good neonatal practice is the way of parturition. Faced with this reality and the innumerable benefits that this action provides both the mother and the newborn, it is suggested the encouragement of professional training, alternatives for the implementation of this good practice in cesarean parturitions, and the preparation of booklets presenting the main advantages of early maternal breastfeeding

Keywords: Breastfeeding, First hour of life, Newborn.

#### INTRODUCTION

Breastfeeding in the first hour of life is recommended by the World Health Organization (WHO), and corresponds to the fourth step of the Baby-Friendly Hospital Initiative (IHAC). This is one of the fundamental strategies for the promotion, protection, and support of breastfeeding in the country, and it is based on the ability of

newborns (NB) to interact with their mothers in the first minutes of life. (BOCCOLINI et al., 2010).

The advantages of early contact between mother and child are numerous (if both are in good health), including it favors the establishment of the mother-child bond, bringing physical and psychological benefits for both. With this contact, the baby stays warm through the mother's

body heat, which prevents hypothermia, helps in the adaptation of the fetal-neonatal transition, and favors the colonization of the newborn's intestine by microorganisms from the maternal skin flora, providing to the neonate greater immunity. In addition, it also provides the NB with efficient and effective suction, which results in an increase in the prevalence and duration of lactation and a decrease in the neonatal mortality rate. (BARBOSA et al., 2010).

The benefits aren't just for the newborn; the woman, too, presents its advantages by starting breastfeeding early.:

[...] а produção hormonal, desencadeada pelo estímulo deste contato, também afeta a saúde da mulher, visto quefacilita as trocas fisiológicas da condição de grávida para puérpera e ajuda, em menor tempo, a dequitação da placenta, por ação da ocitocina e dos movimentos que o RN realiza com os pés no ventre materno, o que acarreta a diminuição do risco de hemorragia pós-parto, além de proporcionar menor risco de câncer de mama em decorrência amamentação. (FERREIRA D'ARTIBALE; BERCINI, 2014).

A survey published on the UNICEF website in July 2016 shows that around 77 million newborns are not breastfed in their first hour of life. The longer the initiation of breastfeeding is delayed, the greater the risk of death in the first month of life. Delaying breastfeeding between 2 and 23 hours after birth increases the risk of death in the first 28 days of life by 40%. Delaying it for 24 hours or more increases this risk by 80%. In Brazil, of the total number of deaths among children under 1 year of age, 65.6% occur in the neonatal period and 49.4% in the first week of life. (UNICEF BRASIL, 2016).

Neonatal mortality (between zero and 27 days of life) is responsible for almost 70% of deaths in the first year of life, and newborn care has been one of the challenges to reduce infant mortality rates in our country from causes considered to be preventable, such as infection, birth asphyxia and complications of prematurity (BRASIL, 2014a).

In this sense, the Ministry of Health (MS) organized a major strategy, the Rede Cegonha, launched in March 2011, and it is a pioneering initiative that aims to achieve many goals, including reducing the number

of preventable deaths from women and children in the country (BRASIL, 2011a). The Stork Network is supported by the PNH (National Humanization Program) and aims to implement health actions capable of producing humanized care within the scope of the Unified Health System (SUS), as well as ensuring that all newborns are good. care practices, based on scientific evidence and humanization principles.

If the newborn is born uneventfully, we have the opportunity to highlight several simple, inexpensive, evidence-based practices that can improve survival rates and are capable of longterm impact on nutrition and health. They are late clamping of the umbilical cord, immediate effective skin-to-skin contact by the mother and newborn, and early initiation of exclusive breastfeeding (BRASIL, 2011b).

Pillegi et al. (2008) emphasize that breastfeeding in the first hour of life can be interfered with by hospital practices and the use of modern technology. According to UNICEF (2009), requiring the mother to lie down during labor and delivery, lack of encouragement and freedom to eat or drink, a separate mother from baby and, most importantly, intervene with unnecessary routine care, such as continuous fetal monitoring, venipuncture, sedative analgesics, and episiotomy, can impair the immediate contact between the mother and the newborn, making it difficult to start breastfeeding.

Analgesics received by the mother during childbirth can decrease the NB's sucking reflex, as they can make them more sleepy, thus reducing milk intake and increasing the risk of jaundice, hypoglycemia, and low weight gain. Generally, NB from mothers who did not receive sedation during the delivery present, soon after birth, a calm state of alertness of around forty minutes. After an hour and a half, these states are no longer so long. (PILLEGI et al., 2008).

The support of a caregiver during labor and delivery can reduce the perception of pain and stress, consequently reducing the need for medical interventions. The help and encouragement of mobility that this can provide increases the mother's confidence, speeding up the labor (UNICEF, 2009).

Despite the existence of several programs to encourage breastfeeding in the 1st hour of life, there is a high rate of mothers who do not breastfeed their newborns early, despite having all the requirements for this practice. A study carried out with parturients in maternity hospitals in Rio de Janeiro, between 1999 and 2001, showed that only 16% of mothers offered their breasts to newborns in delivery rooms (BOCCOLINI, 2011). Thus, the study aims to verify the prevalence and factors associated with breastfeeding in the 1st hour of life at Professor Alberto Antunes University Hospital in 2017.

#### **METHODS**

This study is a documentary analysis, descriptive with a quantitative approach, where data were collected through searches in electronic medical records and birth records of the Maternity Hospital of the University Hospital Professor Alberto Antunes, in Maceió - AL, Brazil.From the survey of information, it was possible to carry out a descriptive analysis of the prevalence and factors associated with breastfeeding in the 1st hour of life in that maternity hospital. To carry out the analysis, the number of patients who breastfed in the 1st hour of life and the associated factors (place of birth, maternal age, gestational age, parity, type of delivery, presence) were verified through a case history of companion at the time of delivery, the weight of the newborn and the fate of the newborn after delivery), in 2017.

The data collected made it possible to create variables related to the problem, allowing for statistical analysis. The criteria for inclusion in this research were: medical records of women whose children were born in the delivery room or in the Obstetric Center of HUPAA and records in which the fetuses were born without serious anomalies. The exclusion criteria were: medical records of women with restrictions on breastfeeding (seropositive), medical records of women with intrauterine fetal death, and records of fetuses with severe malformations. After applying these criteria, we reached a total sample of 1217 medical records (n= 1217).

This study complied with Resolution 466/2012 and 510/2016 of the National Health Council and was initiated after approval on the Plataforma Brasil website, approved under opinion number: 2,442,674. It was not necessary to use informed consent.

#### **RESULTS**

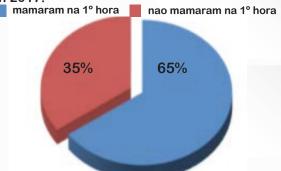
The research sought to demonstrate, through numbers, the prevalence and factors associated with breastfeeding in the 1st hour of life, emphasizing its relationship

with maternal age, place of birth (Obstetric Center or Delivery Room), Gestational Age (preterm, term, or postterm), maternal parity (primiparous or multipregnant), type of delivery (cesarean or normal), presence of a companion at the time of delivery and newborn weight (low weight, normal or macrosomic weight).

The study included 1217 births in the maternity hospital of the Professor Alberto Antunes University Hospital (HUPAA), throughout 2017.

Graph 1 shows that, of the total of 1217 births, 793 newborns were breastfed in the 1st hour of life, corresponding to 65% of the total; and 424 were not offered the breast in the 1st hour of life, equivalent to 35%.

Graph 1 - Prevalence of newborns who were breastfed in the 1st hour of life, at HUPAA, in 2017.



Source: (Researcher data, 2018).

At the Professor Alberto **Antunes** UniversityHospital, births can take place in two places: at the Obstetric Center and the Delivery Room. Births at the Obstetric Center are usually cesarean deliveries where the indication for surgery is due to maternal and/or fetal health conditions; the normal deliveries that occur at the Obstetric Center are of fetuses with less than 34 weeks (premature) that need more advanced support of care at birth. In the Delivery Room, only normal deliveries of fetuses above 34 weeks are performed, without anomalies, and both mother and child do not have contraindications for this type of birth.

Graph 2 - Consolidated of newborns who were breastfed in the 1st hour of life, according to a place of birth, at HUPAA, in 2017.

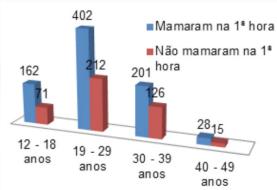


Source: (Researcher data, 2018).

The data in Graph 2 show that there were 863 births (71%) in the Obstetric Center and 354 (29%) in the Delivery Room. As for breastfeeding in the 1st hour of life, deliveries in the Delivery Room had a percentage of 82% of adherence to this good neonatal practice, while in the Obstetric Center it was only 58%.

In Graph 3, we observe that 233 pregnant women who gave birth at the study site are in the adolescent age group, corresponding to 19.1% of all pregnant women, and that, despite their young age, the vast majority, 162 (70%), she fed her children in the first hour of life with breast milk. In the other age groups, there was a variation of 61% – 66% in the breastfeeding rate in the 1st hour of life.

Graph 3 - Consolidated of newborns who were breastfed in the 1st hour of life, according to maternal age, at HUPAA, in 2017.



Source: (Researcher data, 2018).

According to maternal parity, we observed that both primiparas and multiparas varied between 68% - 63%, respectively, in breastfeeding in the 1st hour of life, with no major divergences related to this factor, as shown in Graph 4.

Graph 4 - Prevalence of newborns who breastfed in the 1st hour of life, according to maternal parity, at HUPAA, in 2017.

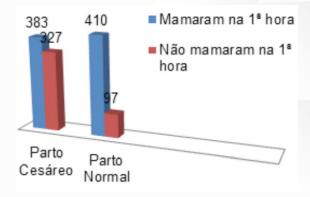


Source: (Researcher data, 2018).

In terms of breastfeeding in the 1st hour of

life (Graph 5), the normal delivery route has a percentage of 81% (410) compared to the cesarean delivery route of 54% (383). Some authors, such as Pillegi (2008), have already shown in their studies that, with scientific progress and discoveries in the field of asepsis, surgery, anesthesia, antibiotic therapy, and blood transfusion, hospital risks have decreased and interventions have expanded, resulting in a progressive increase in cesarean sections, creating hospital routines that promoted separation of mother and newborn soon after birth, hurting breastfeeding (PILLEGI et al., 2008).

Graph 5 - Consolidated of newborns who were breastfed in the 1st hour of life, according to the type of delivery, at HUPAA, in 2017.

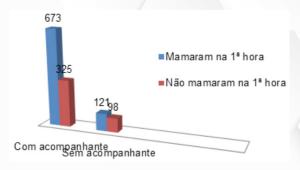


Source: (Researcher data, 2018).

Scientific evidence shows that the presence of a companion contributes to the improvement of health and well-being indicators for the mother (pain relief, shorter duration of labor, and a decrease in the rate of postpartum depression) and the newborn, in addition to the increase in affective bonds (MERIGHI, 2007).

Graph 6 shows that the study's maternity hospital guarantees Law 11.108/2005, as 998 (82%) women gave birth in the presence of a companion of their own choice; as well as the percentage of newborns who were offered the breast in the 1st hour of life was higher in the presence of a companion, 67% (673) than without a companion at the time of delivery, 55% (121).

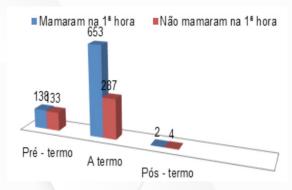
Graph 6 - Consolidated of newborns who breastfed in the 1st hour of life, according to the presence of the companion at the time of delivery, at HUPAA, in 2017.



Source: (Researcher data, 2018).

Graph 7 shows the consolidated number of newborns who were breastfed in the 1st hour of life according to the classification of preterm, term, and post-term. Preterm babies had a rate of 51% (138) in terms of breastfeeding in the 1st hour of life. The vast majority of births were term newborns, 77.2% (940), with a percentage of 69% (653) for breastfeeding in the 1st hour of life. The only classification in which the breastfeeding rate was less than 50% was that of post-term newborns, with a rate of nonadherence to this good practice of 67% (04).

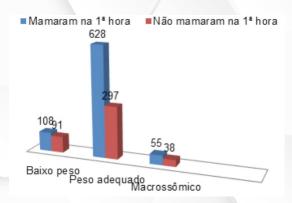
Graph 7 - Consolidated of newborns who were breastfed in the 1st hour of life, according to gestational age, at HUPAA, in 2017.



Source: (Researcher data, 2018).

In terms of breastfeeding in the 1st hour of life about fetal weight, the prevalence was positive for all classifications of newborns, with a percentage of 54% (108) for low birth weight newborns, 68% (628) for newborns of adequate weight, and 59% (55) for macrosomic, according to Graph 8.

Graph 8 - Consolidated of newborns who breastfed in the 1st hour of life, according to fetal weight, at HUPAA, in 2017.



Source: (Researcher data, 2018).

A study carried out in Recife at a Hospital Amigo da Criança, in 2016, by Silva et al., presented some results similar to those achieved by this research. The rate of breastfeeding in the 1st hour of life was lower (28.7%). Primiparous women also had a higher rate of early breastfeeding (29.3%) than multiparous women.

The type of delivery also showed a significant difference, with normal delivery as a protective factor for breastfeeding, with a percentage of 35.4%, and cesarean delivery with 20.2%. Adequate newborn weight was also positively associated with the outcome of breastfeeding in the 1st hour, with 31.4% (SILVA et al., 2018).

A study by Belo et al. with 562 mothers and newborns, in a Baby-Friendly Hospital in Pernambuco, tried to identify the prevalence of breastfeeding in the first hour of life, the associated factors, and the reasons for its nonoccurrence. The authors obtained as a result that the prevalence of breastfeeding in the 1st hour of life was 31%. And the reasons why 388 children had not been breastfed were: child health problems arising from prematurity and low weight (84.5%) (BELO et al., 2014).

#### **CONCLUSION**

The study allowed careful analysis of the prevalence rates and factors associated with breastfeeding in the 1st hour of life at Professor Alberto Antunes University Hospital, in 2017. The results achieved revealed a percentage of 65% in breastfeeding rates, with 793 newborns breastfeeding in the 1st hour of life, out of a total of 1217 births. Maternal factors such as age and parity did not interfere with breastfeeding. Normal birth and the presence of a companion positively favored this good practice with rates of 81% and 67%, respectively.

Factors linked to newborns, such as prematurity and post-date, are factors that limit breastfeeding in the 1st hour of life, with rates of 51% and 33%, respectively. While children born at term achieve 69% success in this good neonatal practice. Another variable was fetal weight, children with adequate weight had a prevalence of 68%, while those who were born with low weight, and most of the time, needed interventions, had only 54%.

The Professor Alberto Antunes University Hospital is a teaching hospital that helps with academic training and launches a large number of health professionals into the job market. This percentage reached in the survey of 65% in the rate of breastfeeding in the 1st hour of life symbolizes an alert to the need for greater commitment and effectiveness on the part of the entire multidisciplinary team since both the levels recommended by the Ministry of Health (100%) and by WHO (90-100%) were not reached.

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### MIGRAINE TREATMENT: AMITRYPTILINE IS AN EFFECTIVE, LOW-COST OPTION FOR ATTACKS PREVENTION AND RESTORATION OF QUALITY OF LIFE

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#### **Abstract**

1. Master Degree in Neurology, Fluminense great impact on health costs. Achieving its resolution renders the quality of life and saving. Although there has been expensive (UFF), Niteroi, RJ, Brazil. Former Teacher, Serra Migraine is a very common and disabling disease. Also, it has a great impact on health costs. Achieving its resolution renders the quality of life and saving. Although there has been expensive medicine for it, there are also low-cost, effective drugs for its prevention. This paper discusses an option for such a situation.

Keywords: Amitryptiline, Adverse Effects, Health Costs. Migraine, Prevention

### INTRODUCTION

Migraine is a very frequent condition. It is estimated that one-fifth of the world's population suffers from it (Salazar, Berrocal e Failde, 2021), and a similar rate is found in Brazil (SILVA JUNIOR et al., 2012). Furthermore, it is estimated that the disease causes an extensive burden:

when it is related to healthcare and treatment it is called "direct cost"; and when it is related to absenteeism and presentism it is called "indirect cost". In Europe, it is estimated about 7,302,718 euros of total annual cost, both direct and indirect (BADIA et al.,2004). In the USA, such estimative goes about U\$ 1 billion direct costs and U\$ 14 billion indirect costs

(ORHURHU et al., 2021).

Such an important disorder as migraine has attracted attention from pharmaceutical industries, which have invested millions in discovering new drugs for its prevention and take profit from them. The most recent investment has been called Monoclonal Antibodies, and in Brazil, the brands in the health market have their price at about R\$ 1.500,00.

However, there long-known are medicines that have much cheaper prices and are as effective as they. Their broad use has been restricted mainly because of their side effects, which restrain a larger use. But when considering access to treatment, such drugs become much more attractive to societies where the price is the main factor for limitation. Should the adverse effects be avoided, should a major health problem as migraine prevention be solved.

Amitryptiline is one of these medicines, which costs about R\$ 18,00/month in Brazil.

The regular drug industry produces brands that start with 10 mg of the pill, and the medical literature presents average doses of 25-100 mg daily. Such doses are accompanied by collateral effects as weight gain, constipation, xerostomia, dizziness, and somnolence that limit a larger use.

In this paper, the author proposes the use of smaller doses of this drug, which is effective and produces side reactions at a much smaller rate than the doses available at the pharmacies.

# **METHODS**

This study was carried out through a literature review using the most recent bibliography on the subject in question and the search engines Bireme and Scielo.

#### **RESULTS**

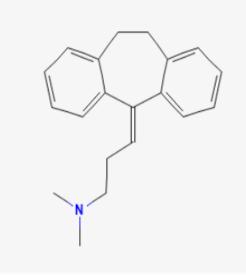
# AMITRYPTILINE:

Chemically, Amitryptiline is N, Ndimethyl-3-(2-tricyclo [9.4.0.03,8] pentadeca-1(15),3,5,7,11,13hexaenylidene) propane-1-amine (Figure 1). Namely, it is a tertiary amine with a three-ring central structure which means that it belongs to a chemical group known as "tricyclic" (there is another group ijeresearch.org Page | 3known as "tetracyclic" which has four rings, of course ...) (NATIONAL LIBARY OF MEDICINE, 2022).

The mechanism of the action takes place by the inhibition of the reuptake of both serotonin norepinephrineneurotransmitters through the blocking of transporters (SERT and NET) at the presynaptic terminal of the neurons (TOUR, MARWAHA, 2021). Probably both at the central and at the peripheral pain modulation centers.

It is worth noticing that the adverse clinical problems are dose depended (GILLMAN, 2007). So, this is where lays the window for the use of small doses of the drug for migraine prevention.

Figure 1 Structure of Amitriptyline



# Source:

https://pubchem.ncbi.nlm.nih.gov/compound/Amitriptyline

#### **USE:**

The usual dose for migraine prophylaxis is about 25 mg/day. The Brazilian Headache Society still sustains the use of Amitryptiline at doses from 12,5-75 mg/day (SOCIEDADE BRASILEIRA DE CEFALEIA, 2002). But there are references in the medical literature for doses ranging from 2,5 mg to 100 mg/day in adults (DOYLE STRAUSSet al., 2016); and 5-10 mg/day in children (EIDLITZ-MARKUS et al., 2012). Both papers present high rates of success.

At a personal level, this author has been using doses as small as 6-18 mg/day to successfully prevent migraine crises and restore quality of life. They have been manipulated at special pharmacies that produce pills with the required ordered dosage.

# **CONCLUSION**

There is strong evidence both in the medical literature and in the clinical experience to support the proposal of the use of small doses of amitryptiline as an effective, low-cost medication

to prevent migraine attacks. Since migraine has a very heavy health cost, it is possible to achieve great savings with small expenses. The more expensive medicines should be reserved for those who don't present a clinical response at all.

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# DIFFUSE LARGE B-CELL LYMPHOMA WITH INFILTRATION OF THE **CENTRAL NERVOUS SYSTEM: A CASE STUDY**

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# **Abstract**

1.Master in Public Health Abstract Introduction: Non-Hodgkin's Lymphoma can present several subtypes, being the Diffuse Large B Cell Lymphoma (LDGCB) the most common among them, the symptoms are usually: sweating, fever, itching and unexplained weight loss. Objective: Present a case study of LDGCB invol ving the Central Nervous System. Method: Case report of a patient treated at a high complexity of a University Hospital in the northeast Brazil undergoing chemostherapy and radiotherapy treatment. Results: The literature found confirmed that even with a diagnosis when the disease has an advanced stage, the prognosis is reserved. Conclusion: In this case, the patient died after one year of treatment due to CNS metastasis.

Keywords: Central Nervous System. Lymphoma. Metastasis

# INTRODUCION

Cancer is the name given to a set of more than one hundred diseases that have in common a disordered (malignant) growth of cells that invade tissues and organs, which can spread (metastasize) to other regions of the body. (INCA, 2012).

Secondary neoplasms represent important cause of morbidity and mortality from cancer. With an increase in access and the development of more sensitive diagnostic methods, brain metastases are being diagnosed more frequently. (ONISHI, et al., 2005)

According to Reis, Schwinguel and Nascimento 2003), when the disease is not primary in the CNS, metastases to this site occur in 2% to 15% of cases, in non-Hodgkin lymphoma.

Non-Hodgkin lymphomas (NHL) comprise a heterogeneous group of lymphoid tissue neoplasms with distinct histological subtypes and clinical presentation. In the West, the diffuse large B cell subtype (LDGCB) is the most common. (HALLACK NETO et al. 2005 apud SHIH 1991).

For Bigni (2004), this type of lymphoma represents the fifth most common form in Brazil, with an incidence of 55 thousand cases per year and more than 26 thousand deaths.

lymphomas Non-Hodgkin's are more prevalent in elderly people and males. (MOTA, 2006 apud FERLAY; et al., 2001)

In this context, the aim of this study is to present a case of LDGCB involving the CNS where the main signs and symptoms of brain metastasis are discussed based on a

literature review.

#### **METHODS**

The present study dealt with a case report in a High Complexity Oncology Center (CACON) of a University Hospital in the Northeast, which was submitted to chemotherapy and radiotherapy treatment, where the following keywords were used for the research (Lymphoma, Central Nervous System, Metastases), looking for references in databases: Scielo and Bireme.

The study population was the physical and electronic medical record of a patient diagnosed with large B-cell Non-Hodgkin's Lymphoma, seen at the CACON outpatient Clinic.

Data collection took place from February 2017 to April 2018, with prior authorization from the Institution. After the collection period, the data were analyzed based on the theoretical framework studied. O paciente da pesquisa foi estudado de acordo com os preceitos éticos existentes e seu nome mantido em sigilo.

# **RESULTS**

The patient in the study is male, 18 years old, white, single, student, born and resident in Maceió/Alagoas, was admitted to the service

through medical referral from another institution, to undergo lymph node biopsy and be accompanied by the hematology team.

His main complaint was back pain, sweating, dark urine and itching in the body, fever, loss of 13 Kg in two months, he brought a result of Cervical Tomography (11/02/17) that showed Lymph Nodes of Dimensions increased in level II, III and IV up to 34 mm; Abdomen and pelvis tomography without contrast (02/11/17), showing a retroperitoneal mass next to the epigastric, increased renal volume with lymph node conglomerates; USG of the Total Abdomen (02/12/17) with result of an enlarged liver, image suggestive of steatosis and nodular image, dilated liver canal and common bile duct, nodular images in hepatic and splenic hila, and nodular image in pancreas topography; and, MRI Upper Abdomen and Cholangio MRI (02/13/17) showing large retroperitoneal lymph node enlargement along the hepatic hilum, Splenomegaly, Nodules in the hepatic parenchyma, splenic and renal pancreatic, Simple cysts in the left kidney, compression of the intrahepatic and common bile ducts by adjacent lymph node, and nodular configuration in the right lung base.

Physical examination showed lymph node enlargement in the cervical region of approximately 9x4 cm, mobile, painless, without fistulation, absence of inflammatory signs in adjacent skin.Realizado Exames de Análise Clinica e exames para avaliação da função cardíaca.

The patient was submitted to a cervical lymph node biopsy, the result of which was the histopathological study of atypical lymphoid proliferation, consistent with Non-Hodgkin's Lymphoma with characteristics between Burkit's Lymphoma and diffuse large B-cell lymphoma. (IHC) for confirmation of histogenesis and subclassification. Realizou em 24/02/17 Biópsia de Medula Óssea apresentando 10 espaços intratrabeculares livre de neoplasia e cerca de 80% de celularidade hematopoiética; presença das 3 séries em número habitual e maturação presente.

IHC with result: Bachii Left Cervical Tumor compatible with Large B-Cell Diffuse Lymphoma, stage IV; germinal center. 95% cell proliferative index. CD 20+ CD3-, CD10neg KI67 95% bcl2: +; bcl6+; MuM 1 neg; MYC + 70%.

Chemotherapy treatment started with the CHOP scheme (Cyclophosphamide, Doxorubicin, Vincristine and Prednisone) and 23 sessions of Radiotherapy.

The patient remained under chemotherapy and radiotherapy treatment, evolving with nausea, dizziness, vomiting, intense and persistent headache, 9/10 pain, intermittent visual darkening, intermittent pain in the posterior region of the D leg with heaviness, paresthesia and constipation.

Head CT (06/28/17) was requested, which showed a lesion suggestive of Metastasis to the Central Nervous System (CNS) with perilesional edema and mild midline deviation.

From that moment on, the diagnosis of LDGCB with secondary involvement of the CNS was established.

During the treatment period, he underwent several exams such as: PET/CT; Skull, Thorax, Neck Tomography; Resonance of the Brain, Upper Abdomen; USG Armpit D and Total Abdomen. Conducted on 03/20/18 Magnetic Resonance and CSF study with confirmation of meningeal progression, since then he says he has been losing stools without feeling, memory impairment and emotional instability. Paciente internou com febre, dores em MMII, que não melhorava ao uso de Morfina e evolui a óbito em 08/04/2018.

Non-Hodgkin's Lymphoma is more common in males, represents between 8 to 10% of all malignant neoplasms in children between 8 and 19 years, and is predominantly due to mature Bcell lymphoma, one of the most common histological subtypes, is diffuse large B-cell lymphoma (LDGCB). (OLIVEIRA; CAMPOS, 2015). The case studied was male, aged 18 years, which is compatible with the studies.

To determine the diagnosis of Non-Hodgkin's Lymphoma, a clinical history is taken, physical examination, imaging and biopsy are performed. The histological type and subtype of lymphoma is determined through histopathological examination associated with immunohistochemistry, and immunohenotyping, immunohistochemistry given the variability of biologically distinct groups of NHL (FERREIRA, 2013).

performed with The approach the abovementioned patient to determine the diagnosis followed what was recommended in several studies, such as clinical history, imaging tests, clinical analysis tests, biopsy and immunohistochemistry. For Saints; Fernandes (2008) to obtain the diagnosis of NHL, it is necessary in addition to clinical history, physical examination and complementary exams, such as: Lymph node/Tissue biopsy; Bone Marrow Biopsy; Immunophenotyping; Blood count; Liquor puncture; Immunoglobulin dosage and imaging exams.

According to the literature, at least 80% of patients with Non-Hodgkin's Lymphoma have palpable lymphadenopathy, mainly cervical lymph nodes. (PETROIANU, 2007) In the present study, the patient had palpable lymph node involvement in the cervical region. For Saints; Fernandes (2008); Mota (2006) the current standard treatment for advanced stages of Diffuse Large B Cell Lymphoma (LDGCB), which is the case of the study above, stage IV, is the CHOP chemotherapy regimen, which was used. These patients should also have their cardiac function evaluated before starting treatment, due to the drug's cardiac toxicity. Radiotherapy is indicated for the consolidation of those areas that initially presented with a voluminous disease.

Patients with stage IV LDCGB have a poor prognosis. (TILLY, et al. 2003)

This group of neoplasms has a rapid growth rate, so most patients have disseminated disease at diagnosis with involvement of the Central Nervous System, presenting various symptoms such as: fever, adynamia, skin paleness, pale mucosa, change in bowel habits, intestinal obstruction, lymphadenomegaly, pleural or peritoneal effusion, respiratory distress and bone pain. (OLIVEIRA; CAMPOS; 2015)

For Carvalho (s/d) patients undergoing radiotherapy treatment may present clinical complications, with memory impairment and intellectual impairment.

The clinical manifestations of CNS metastases can be general and focal, often several patients have both. Symptoms include headache, cognitive difficulties, personality changes and gait disturbance. (DEANGELIS; WEN; 2015)

Confirming the literature once more, the case studied presented some of the aforementioned manifestations, in addition to alterations in the neurological condition.

Despite advances in the treatment of brain metastases, the prognosis of these patients remains poor, with an overall survival of around 12 months. (SANTOS, et al 2001 apud DAVEY, 1999) In this case, the disease evolution time is consistent with that mentioned in this literature, there was rapid metastatic dissemination of the CNS, and the duration between diagnosis and death was from February 2017 to April 2018.

# **CONCLUSION**

This research aimed to present a case study of a patient with Diffuse Cell Non-Hodgkin's Lymphoma, with involvement of the Central Nervous System, seen in a public hospital, allowing to emphasize how important the clinical evaluation and diagnostic investigation was even in the face of a prognosis reserved.

Despite advances in technology and scientific knowledge about Non-Hodgkin's Lymphoma and its treatment, early diagnosis may be a differential for the quality of life of patients.

In the hospital context, multidisciplinary work was carried out, which helped and collaborated

with the care provided, promoting care, coping with the treatment, minimizing the patient's suffering and promoting emotional support to the family.

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