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The Prevalence of Meningity in the Period 2014-2016 and the Importance of Nursing Care

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Abstract: ***Introduction****: Meningitis is a meningitis inflammation and comes as a result of various factors such as bacterial and viral factors.* ***Purpose of the study****: The purpose of the study is to determine the prevalence of meningitis during the period 2014-2016 in different age groups and the importance of nursing care.* ***Material and Method****: The study is retrospective type for the period 2014-2016. This study included data from the exit register at the Rehabilitation Unit of the QSUT Infectious Hospital.* ***Outcomes****: The average age of the population in the study was 44.7 years old, where men were 40.22 years old and 49.39-year-old females. As far as gender information was concerned, it was noted that the most affected were men with 49 individuals or 68.05% compared to females with 23 individuals or 31.95%. The most affected age group was 21-30 years, 41-50 years and 51-60 years with an equal number of individuals 13 or 18.05% of individuals. Individuals affected by this disease from urban areas were higher in comparison to rural areas, respectively 51 individuals or 70.83% compared to 21 individuals or 29.17% in rural areas. The average daylight was 7.25 days. The biggest mortality rate was in males with 9 cases compared to 7 cases in females. It was observed that there was no statistical significance between 2 variables: age and gender (p = 0.82> 0.05). It was observed that there was no statistical significance between 2 variables: hospital stay and gender (p = 2.93> 0.05).* ***Conclusions****: Meningitis is a difficult treatment pathology, so it is important to have a better quality medical and nursing intervention and bring about a reduction in new cases and mortality in the country.*

Keywords: meningitis, age group, place of residence, mortality, hospitalization

1. General Information

Meningitis is an inflammation of meningitis. Meninges are the three membranes that cover the brain and spinal cord. The most common causes of meningitis are viral and bacterial infections.

Viral and bacterial infections are the most common causes of meningitis. There are some other forms of meningitis. Examples include cryptococcal, which is caused by a fungal infection, and carcinomatous, which is associated with cancer. These types are rare.

Bacterial meningitis is contagious and is caused by infection by certain bacteria. It's fatal if it is not treated. 5-40% of children and 20-50% of adults with this condition die.

Symptoms of viral and bacterial meningitis may be similar at first. However, the symptoms of bacterial meningitis are usually heavier. Symptoms also vary depending on age.

Treatment depends on the cause of meningitis. Bacterial bleeding requires immediate hospitalization. Diagnosis and early treatment will prevent brain damage and death. Bacterial meningitis is treated with intravenous antibiotics. There are no special antibiotics for bacterial meningitis. Depends on the bacteria involved.

2. Material and Method

The population in the study

This is a retrospective study and includes the exit record at the Rehabilitation Unit of the QSUT Infectious Hospital in the period 2014-2016 and includes 72 individuals of the age group 0-85. Individuals were randomly selected

Data collection

The data collection was made from exit cards in the QSUT Infectious Reanimation Unit based on demographic factors such as age, place of residence or gender as well as factors such as mortality or hospital stay.

Age-related information was categorized into 8 categories: 0-20 years. 21-30 years, 31-40 years, 41-50 years. 51-60 years, 61-70 years. 71-80 years,> 80 years. Gender information was categorized into 2 categories: female and male

Housing information was categorized into 2 categories: urban and rural.

3. Results

Table 1: Distribution of the population in the study based on gender

	Female	Male	Total	%
2014	8	15	23	31.94
2015	10	13	23	31.94
2016	5	21	26	36.12
Total	23	49	72	100

Gender	Frequency	Cumulative frequency	% cumulative frequency
Female	23	23	31.94
Male	49	72	100

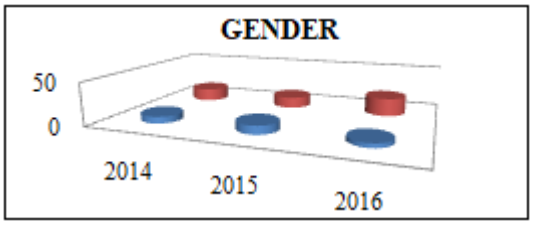

Figure1: Distribution of population in study based on gender

The average age of the population in the study was 44.7 years old when men were of average age 40.22 years old and women of average age 49.39 years.

As far as gender information is concerned, it was noted that the most affected were men with 49 individuals or 68.05% of cases compared to women with 23 individuals or 31.95%. Regarding the distribution of the years it was observed that the year that most individuals affected by this pathology were 2016 with 26 individuals or 36.12% of cases compared to the other two years having an equal number of individuals respectively 23 individuals or 31.94 % of cases.

Age group	Male	Female	Total
0-20	6	3	9
21-30	12	1	13
31-40	7	4	11
41-50	8	5	13
51-60	8	5	13
61-70	3	1	4
71-80	5	3	8
>80	0	1	1
Total	49	23	72
%	68.05	31.94	100

Table 2: Population distribution by age group

Age group	Frequency	Cumulative frequency	% Cumulative frequency
0-20	**9**	**9**	**12.5**
21-30	**13**	**22**	**30.55**
31-40	**11**	**33**	**45.83**
41-50	**13**	**46**	**63.88**
51-60	**13**	**59**	**81.94**
61-70	**4**	**63**	**87.5**
71-80	**8**	**71**	**98.61**
>80	**1**	**72**	**100**

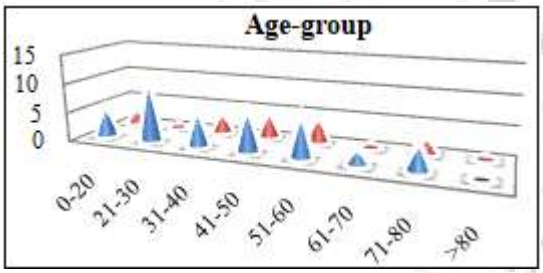

Figure 2: Population distribution by age group

Age-related information was categorized into 8 categories: 0-20 years, 21-30 years, 31-40 years, 41-50 years, 51-60 years, 61-70 years, 71-80 years,> 80 years.

Table 2 gives us a distribution of the age group and sex population that shows that the most vulnerable age group is 21-30 years old, 41-50 years old and 51-60 years with an equal number of individuals 13 or 18.05% of cases while in gender mainstreaming The most vulnerable age group in men is 21 to 30 years or 16.66% of cases, while among women the most affected age group is 41-50 years and 51-60 years with equal number of individuals 5 or 6.94% of cases.
There is a positive relationship between two variables: age and gender.(r=0.0387)

P value 0.82>0.05

There is no statistical significance between 2 variables: age and gender.

Residence	Urban	Rural	Total	%
2014	15	8	23	31.94
2015	18	5	23	31.94
2016	18	8	26	36.12
Total	51	21	72	100

Table 3: Population distribution based on residence

Residence	Frequency	Cumulative frequency	% Cumulative frequency
Urban	51	51	70.83
Rural	21	72	100

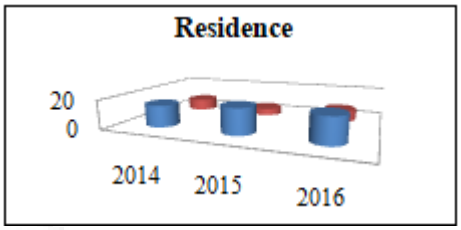

Figure 3: Population distribution based on residence

Information based on residence was categorized into 2 categories: urban and rural.

Table 3 gives a population-based population distribution that shows that individuals affected by this disease from urban areas were higher in comparison to rural areas, respectively 51 individuals or 70.83% of cases compared to 21 individuals or 29.17% of cases in rural areas.

Hospitalization	1-5 day	6-12 day	13-20 day	>20 day	Total
2014	13	6	2	2	23
2015	11	9	1	2	23
2016	14	9	3	0	26
Total	38	24	6	4	72

Table 4: Distribution of population based on hospital stay

Hospitalization	Frequency	Cumulative frequency	% Cumulative frequency
1-5 day	38	38	52.77
6-12 day	24	62	86.11
13-20 day	6	68	94.44
>20 day	4	72	100

Information about hospitalization was categorized in 4 categories: 1-5 days, 6-12 days, 13-20 days and> 20 days. Table 4 gives us a distribution of the number of individuals based on hospital stay where it is noticed that the largest number of individuals have stayed 1-5 days hospitalized in comparison to other inpits.

The number of individuals who stayed 1-5 days was 38.
The number of individuals who stayed 6-12 days was 24.
The number of individuals who stayed between 13 and 20 days was 6.
The number of individuals who stayed> 20 days was 4.
The average daylight was 7.25 days.
There is a positive relationship between two variables: hospitalization and gender.(r=0.74)
P value 2.93>0.05

There is no statistical significance between 2 variables: hospitalization and gender.

Gender	Nr	Mortality
Male	49	9
Female	23	7

Table 5: Population distribution based on mortality

Mortality	Frequency	Cumulative frequency	% cumulative frequency
Male	9	9	56.25
Female	7	16	100

Mortality information is divided into 2 categories: mortality in males and mortality in females.

Table 5 gives us a gender-based distribution of mortality that shows that the highest morality in males is 9 cases compared to 7 cases in females.

There is a positive relationship between two variables: age and mortality(r=0.038)
P value 0.89>0.05

There is no statistical significance between 2 variables:age and mortality.

4. Conclusions

The average age of the population in the study was 44.7 years of age when men were of average age 40.22 years and women of average age 49.39 years. As far as gender information was concerned, it was noted that the most affected were males with 49 individuals or 68.05 % of cases compared to women with 23 individuals or 31.95%. As far as distribution of the years was noted that the year that most individuals affected by this pathology were 2016 with 26 individuals or 36.12% of cases compared to two other years with an equal number of individuals, respectively 23 individuals or 31.94% of cases.

- The most affected age group is 21-30 years, 41-50 years old and 51-60 years with an equal number of 13 or 18.05% of cases, and according to gender division the most affected age group is 21-30 years old or 16.66% of cases, while in women the most affected age group is 41-50 years and 51-60 years with equal number of individuals 5 or 6.94% of cases.
- There is no statistical significance between 2 variables: age and sex.
- Individuals affected by this disease from urban areas were with higher numbers compared to
- rural areas respectively 51 individuals or 70.83% of cases compared to
- 21 individuals or 29.17% of cases in rural areas
- The largest number of individuals stayed 1-5 days hospitalized compared to other inidividuals.

The number of individuals who stayed 1-5 days was 38.
The number of individuals who stayed 6-12 days was 24.
The number of individuals who stayed between 13 and 20 days was 6.
The number of individuals who stayed> 20 days was 4.
The average daylight was 7.25 days.

- There is no statistical significance between 2 variables: day and sex
- The highest morality is in males with 9 cases compared to 7 females.
- There is no statistical significance between 2 variables: age and mortality
- Meningitis is a difficult pathology in treatment, so it is important to intervent medical and nursing care qualitative and that brings about a reduction of new cases and mortality in the country.

References

[1] European Centre for Disease Prevention and Control. Meningococcal disease. .
[2] Harrison MD. The Epidemiology of Meningococcal Disease in the United States. Clin Infect Dis.2010;50(S2): S37.
[3] World Health Organization. Meningitis outbreak response in sub-Saharan Africa—WHO guidance.
[4] World Health Organization. Meningococcal meningitis Fact sheet N°141.
[5] Hubert B, Caugant DA. Recent changes in meningococcal disease in Europe. Euro Surveill. 1997;2: 69–71. pmid:12631793
[6] Caugant DA, Høiby EA, Magnus P, Scheel O, Hoel T, Bjune G, et al. Asymptomatic carriage of *Neisseria meningitidis* in a randomly sampled population.
[7] J Clin Microbiol. World Health Organization. Control of epidemic meningococcal disease.
[8] WHO practical guidelines. 2nd edition. WHO/EMC/BAC/98/3/EN. (1998)
[9] Heyderman RS, Ben-Shlomo Y, Brennan CA, Somerset M. The incidence and mortality for meningo coccal disease associated with area deprivation: an ecological study of hospital episode statistics. Arch Dis Child. 2004;89(11): 1064–1068. pmid:15499066
[10] Cohn AC, MacNeil JR, Clark TA, Ortega-Sanchez IR, Briere EZ, Cody Meissner H et al. Prevention and Control of Meningococcal Disease: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2013;62:1–22
[11] Harrison LH, Trotter CL, Ramsay ME. Global epidemiology of meningococcal disease. Vaccine. 2009;27 2:B51–63Rosenstein NE, Perkins BA, Stephens DS, et al.
[12] The changing epidemiology of meningococcal disease in the United States, 1992-1996. J Infect Dis. 1999;180:1894–901
[13] GBD 2015 Mortality and Causes of Death, Collaborators. (8 October 2016). "Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980-2015: a systematic analysis for the Global Burden of Disease Study 2015". *Lancet*. 388 (10053): 1459–1544.
[14] *GBD 2013 Mortality and Causes of Death, Collaborators (17 December 2014).* "Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013". *Lancet. 385 (9963): 117–71*

[15] Meningococcal meningitis Fact sheet N°141". WHO. November 2015. Archivedfrom the original on 5 March 2016. Retrieved 5 March 2016.
[16] Centers for Disease Control and Prevention. 22 October 2015. Archived from the original on 19 December 2015. Retrieved 23 December 2015.
[17] *Tebruegge M, Curtis N (July 2008).* "Epidemiology, etiology, pathogenesis, and diagnosis of recurrent bacterial meningitis". *Clinical Microbiology Reviews. 21 (3): 519–3*
[18] World Health Organization (1998). *Control of epidemic meningococcal disease, practical guidelines, 2nd edition, WHO/EMC/BA/98* (PDF). 3. pp. 1–83. Archived (PDF)from the original on 30 October 2013.
[19] Gandell GL, Bennett JE, Dolin R. Principles and Practice of Infectious Diseases, 6th Edition. Churchill Livingstone 2004.