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#### SECTION 20. Medicine.

## PREVALENCE OF TUBERCULOUS MENINGITIS AMONG MALE AND FEMALE CASES

**Abstract:** Objective: To determine difference of prevalence of tuberculous meningitis among male and female gender

*Design and duration:* This is a cross sectional study of observational type. Study was started in February 2018 and completed in October 2018 comprising on total duration of 9 months.

*Setting:* Study was conducted in Medical unit of Jinnah Hospital Lahore. This is a tertiary care hospital of Pakistan treating patients of large number daily basis.

*Patients and Methods:* All patients admitted with the signs and symptoms of meningitis were included in this study. These cases were admitted in the medical ward and investigations were done for evaluating the disease. CBC, serum profile and CT scan brain was done from within the hospital resources. Cases were belonging to both male and female gender irrespective of their age. A performa was designed in which all relevant questions were mentioned and answers of patients were documented in it properly. Cosent was taken from the patients for including them in the study. Permission was also taken from ethical committee of the study hospital. Privacy of data was maintained. All data was analyzed using statistical softwares and results were calculated in the form of percentages and frequency and presented via tables and graphs.

*Results:* There were 190 cases included in this study out of which only 60 cases were diagnosed with tuberculous meningitis with prevalence of 31.5%. Age range of patients was 15-60 years with mean age of 45.6 years. There were 28(14.7%) cases between 10-20 years age, 23.7% between 21-30 years, 35.8% between 31-40 years, 15.3% between 41-50 years and 10.5% between 51-60 years. There were 40 male cases and 20 female cases with meningitis out of 60 cases.

*Conclusion:* Tuberculous Meningitis is more common below 40 years age and male cases are more than female cases. Early diagnosis and treatment may decrease morbidity and mortality.

**Key words:** Meningitis, tuberculosis, Headache, Fever.

**Language:** English

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#### Introduction

Meningitis is very common among Pakistani population and out of them mostly are of viral type. Bacterial cause is not much common but most common bacterial cause is tuberculous meningitis. These cases present with headache severe and usually not completely relieving with medication. Vomiting and fever are also major complaints. There were 190 cases included in this study out of which only 60 cases were diagnosed with tuberculous meningitis with prevalence of 31.5%. Age range of patients was 15-60 years with mean age of 45.6 years. All patients admitted with the signs and symptoms of meningitis were included in this study.

These cases were admitted in the medical ward and investigations were done for evaluating the disease. CBC, serum profile and CT scan brain was done from within the hospital resources. Cases were belonging to both male and female gender irrespective of their age.

**Patients and Methods:** This is a cross sectional study of observational type conducted in a tertiary care hospital of Pakistan. Total duration of 9 months was spent in this study. All patients admitted with the signs and symptoms of meningitis were included in this study. These cases were admitted in the medical ward and investigations were done for

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evaluating the disease. CBC, serum profile and CT scan brain was done from within the hospital resources. Cases were belonging to both male and female gender irrespective of their age. A performa was designed in which all relevant questions were mentioned and answers of patients were documented in it properly. Cosent was taken from the patients for including them in the study. Permission was also taken from ethical committee of the study hospital. Privacy of data was maintained. All data was analyzed using statistical softwares and results were calculated in the form of percentages and frequency and presented via tables and graphs.

### Results

All patients admitted with the signs and symptoms of meningitis were included in this study.

These cases were admitted in the medical ward and investigations were done for evaluating the disease. CBC, serum profile and CT scan brain was done from within the hospital resources. Cases were belonging to both male and female gender irrespective of their age. There were 190 cases included in this study out of which only 60 cases were diagnosed with tuberculous meningitis with prevalence of 31.5%. Age range of patients was 15-60 years with mean age of 45.6 years. There were 28(14.7%) cases between 10-20 years age, 23.7% between 21-30 years, 35.8% between 31-40 years, 15.3% between 41-50 years and 10.5% between 51-60 years. There were 40 male cases and 20 female cases with meningitis out of 60 cases.

Table 1.

Age of patients	Number of cases (N=190)		Number of cases with meningitis (n=60)			
			Male cases (n=40)		Female cases (n=20)	
	n	%	n	%	n	%
10-20	28	14.7	10	25	3	15
21-30	45	23.7	12	30	5	25
31-40	68	35.8	8	20	8	40
41-50	29	15.3	7	17.5	2	10
51-60	20	10.5	3	7.5	2	10

### Discussion

Meningitis is common in young age and less frequent in old age. Mostly these cases belong to low socioeconomic status. This study was conducted to determine prevalence of disease among male and female cases. This is a cross sectional study of observational type conducted in tertiary care hospital of Pakistan. Total duration of 9 months was spent in this study. All patients admitted with the signs and symptoms of meningitis were included in this study. These cases were admitted in the medical ward and investigations were done for evaluating the disease. CBC, serum profile and CT scan brain was done from within the hospital resources. Cases were belonging to both male and female gender irrespective of their age. A performa was designed in which all relevant questions were mentioned and answers of patients were documented in it properly. Meningitis is very common among Pakistani

population and out of them mostly are of viral type. There were 190 cases included in this study out of which only 60 cases were diagnosed with tuberculous meningitis with prevalence of 31.5%. Age range of patients was 15-60 years with mean age of 45.6 years. There were 28(14.7%) cases between 10-20 years age, 23.7% between 21-30 years, 35.8% between 31-40 years, 15.3% between 41-50 years and 10.5% between 51-60 years. There were 40 male cases and 20 female cases with meningitis out of 60 cases. Bacterial cause is not much common but most common bacterial cause is tuberculous meningitis. These cases present with headache severe and usually not completely relieving with medication. Vomiting and fever are also major complaints. There were 190 cases included in this study out of which only 60 cases were diagnosed with tuberculous meningitis with prevalence of 31.5%.

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