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Scarlet Fever: A Cross-Sectional Survey among Medical Students

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Abstract **Original Research Article**

Scarlet fever has become more common, and the majority of patients show up in emergency rooms and general practice. Cases typically occur in youngsters and are characterized by a characteristic macro-papular rash. By emphasizing important symptoms and outlining possible consequences if left untreated, this article seeks to raise awareness about scarlet fever. To lower the risk of problems and the spread of infection, individuals who exhibit the typical symptoms should be prescribed an appropriate antibiotic, such as phenoxymethylpenicillin (Penicillin V).

Keywords: Scarlet Fever, Pharyngitis, Macropapular Rash, Tonsillar, Swab.

INTRODUCTION

The illness known as "scarlatina," or scarlet fever, is brought on by the infectious Group a Streptococcal bacterium often manifests as exudative pharyngitis accompanied by a maculo-papular rash that spreads from the trunk. Scarlet fever was becoming less common for many years. Nonetheless, the number of cases globally has recently increased. There have been significant outbreaks reported in several nations over the past ten years. For instance, in 2009, mainland China recorded over 100,000 instances, whereas Vietnam reported over 23,000 cases. The USA and Canada have also experienced smaller outbreaks. Between September 2015 and April 2016, Public Health England reported 12,906 cases in the United Kingdom, the highest number since 1969.

MATERIALS AND METHODS

Study Design

Osh State University's International Medical Faculty (IMF) medical students participated in a descriptive cross-sectional survey.

Participants: A total of 100 undergraduate medical students (3rd–6th year) participated voluntarily.

Data Collection

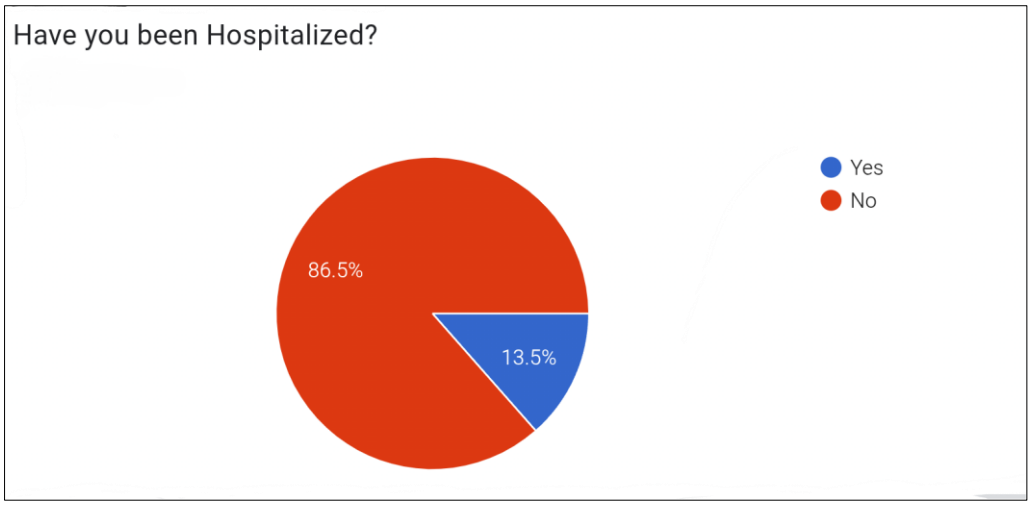
Data were obtained through structured questionnaires distributed during academic sessions, and group findings were displayed in infographic posters (survey images). The questionnaire assessed:

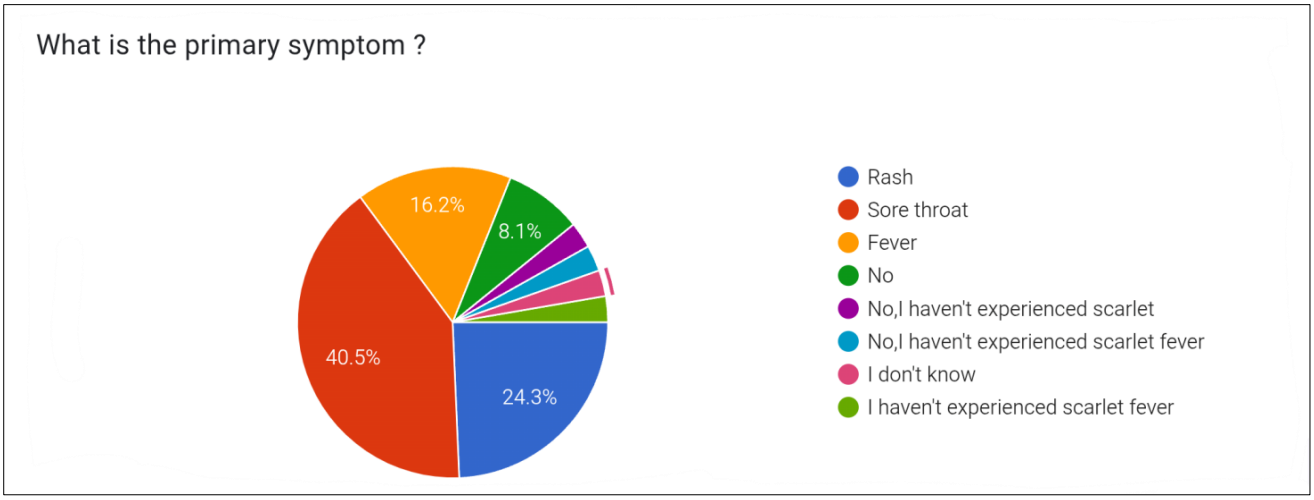
Data Analysis

Descriptive statistics were utilized to present the survey data in the form of percentage summaries. A total of 50 students from the International Medical Faculty (IMF), Osh State University, participated in the survey.

Interpretation

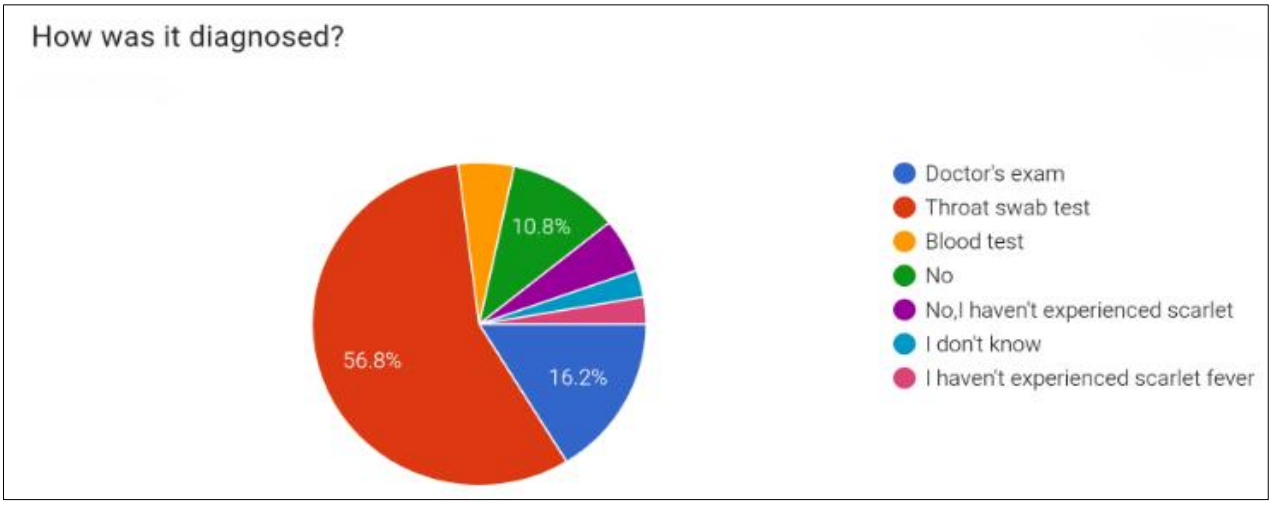
The majority of respondents (86.5%) reported that they were not hospitalized, while only 13.5% required hospitalization. This indicates that most cases were managed without inpatient care, suggesting generally mild to moderate disease severity among the surveyed population.





Finding

The pie chart shows that sore throat is the most commonly reported primary symptom (40.5%), followed by rash (24.3%) and fever (16.2%). A smaller proportion reported no symptoms (8.1%), while the remaining responses were minimal and included uncertainty or not having experienced scarlet fever.



Interpretation

The pie chart shows that most cases were diagnosed using a throat swab test (56.8%), making it the primary diagnostic method. A doctor's clinical examination was the second most common approach (16.2%). A smaller proportion of respondents reported

no diagnostic testing (10.8%), while blood tests accounted for only a minor share. Very few participants indicated uncertainty or reported that they had not experienced scarlet fever, highlighting that laboratory confirmation—especially throat swab testing—remains the dominant diagnostic.

Results (Based on Responses):

The throat swab test was the most commonly used diagnostic method, reported by 56.8% of respondents.

Doctor's clinical examination was the second most frequent method (16.2%).

10.8% of participants reported no diagnostic test being performed.

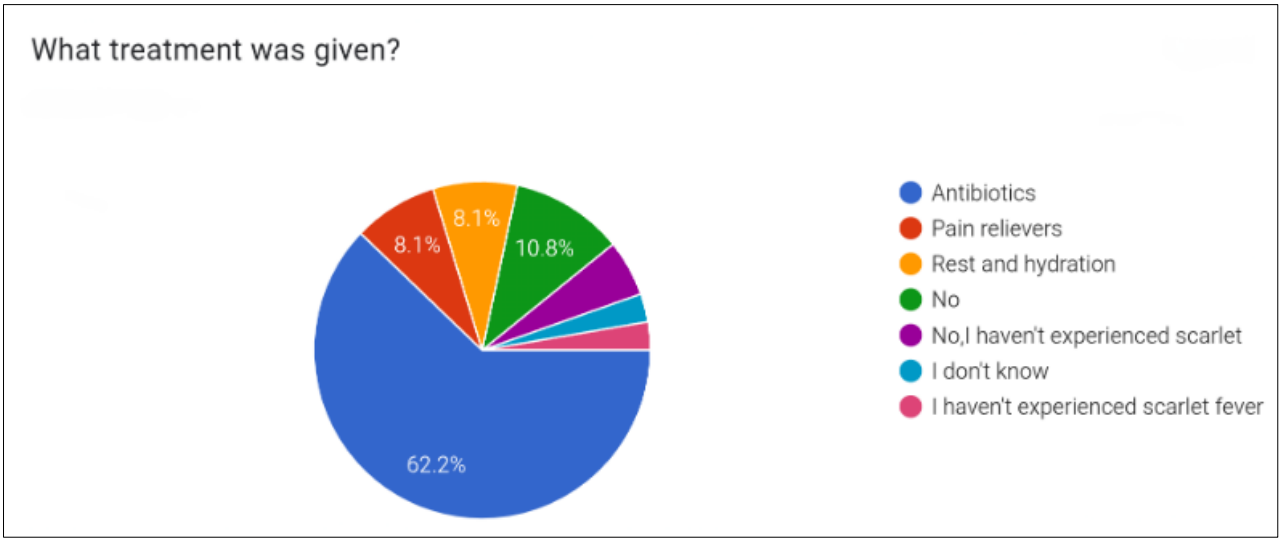
Blood tests were used in only a small proportion of cases.

A few respondents indicated that they did not know how the diagnosis was made or had not experienced scarlet fever.

Overall, the findings indicate a strong reliance on throat swab testing for diagnosis, with comparatively limited use of blood investigations.

Interpretation

The pie chart shows that most cases were diagnosed using a throat swab test (56.8%), making it the primary diagnostic method. A doctor's clinical examination was the second most common approach (16.2%). A smaller proportion of respondents reported no diagnostic testing (10.8%), while blood tests accounted for only a minor share. Very few participants indicated uncertainty or reported that they had not experienced scarlet fever, highlighting that laboratory confirmation—especially throat swab testing—remains the dominant diagnostic practice.



Findings

Most respondents (62.2%) reported receiving antibiotics as treatment. A smaller proportion used pain relievers (8.1%) or rest and hydration (8.1%). About 10.8% indicated they received no treatment, while only a minimal number reported uncertainty or not having experienced scarlet fever.

Interpretation

The chart indicates that antibiotics were the most commonly reported treatment (62.2%), highlighting their primary role in management. Smaller proportions relied on pain relievers and rest with hydration (each 8.1%). About 10.8% reported receiving no treatment, while only a few respondents were unsure or had not experienced scarlet fever.

CONCLUSION

The results of the cross-sectional survey of IMF medical students showed: a lot of awareness about Scareltt fever.

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