### Research Paper

**Medical Science** 



# Screening for Group A Streptococci in School Going Children

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### ABSTRACT

Group A streptococci have been implicated in cases of sore throat & upper respiratory tract infection. It leads to serious non- suppurative sequelae like acute rheumatic fever & acute glomerulonephritis. We visited Shishu vihar, a school mainly catering services to low economic group students. Health check-up was carried out of all the students studying in first to fourth standard. We took throat swabs of children complaining sore throat. These were inoculated on Blood Agar & incubated in candle jar at 370C. In all 318 children were screened. Of the 43 symptomatic, 11 came out to be positive for Group A streptococci on culture. These children were given a five day course of oral Amoxicillin. we recommend throat swabs to be taken for detection of Group A streptococci. Sore throats should not be neglected just as viral episode.

# Keywords: Amoxicilin , Gr.B streptococci, sorethroat

#### Introduction:

Group A streptococci have been implicated in cases of sore throat & upper respiratory tract infection. It leads to serious non-suppurative sequelae like acute rheumatic fever & acute glomerulonephritis. To prevent the sequelae, emphasis needs to be given on early detection, proper treatment & follow up of such children.

### **Objectives** :

- 1. To screen for Group A streptococci in cases of sore throat in school going children
- 2. To monitor & provide follow up to such children
- 3. To study the sensitivity pattern of Group A streptococci

#### Material and Methods:

We visited Shishu vihar, a school mainly catering services to low economic group students. Throat swabs of students complaining with sore throat & fever was taken. Age group of children was between 4- 10 year. A total of 318 students were screened.

Total screened	Symptomatic	Asymptomatic
318 [100%]	43 [13.5%]	275 [86.5%]
Symptomatic	Culture positive for GAS	Culture negative for GAS
43 [100%]	11 [25%]	32 [75%]

Along with these students equal number of asymptomatic age matched students were kept as control & their swabs were also taken. The swabs were transported in Pike's transport media to the Laboratory. Swabs were inoculated on Blood agar & incubated in candle jar at  $37^{\circ}c$ 

Results : Study was carried during period of August- November 2012, Out of 43 symptomatic students, 11 were positive for Group A streptococci on culture. Female: Male ratio was 1.2 : 1 Identification of Group A streptococci was done on the basis of ß hemolysis on Blood agar, Catalase negativity & bacitracin sensitivity. AST of all these isolates was done as per CLSI guidelines. The susceptibility pattern was as follows

We prescribed oral amoxicillin 250mg TDS for 5 days to all culture positive students & randomly 11 students among the rest 32 students & compared their response to treatment. Culture positives responded promptly on average 24-36 hours, while recovery was late in the other group. Female patient responded more quickly as compared to male.

Response to T/t	Girls	Boys
Hours	18-24	24-36

After 5 days antibiotic course we took the swabs of all previously culture positive children. There was absence of Group A streptococci.

Conclusion : We found 5 days antibiotic course of oral Amoxicillin being successfully able to eradicate Group A streptococci eliminating need for 10 days course as this short course is cost effective & having high compliance compared to 10 days course

#### REFERENCES

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