Diagnosis of Streptococcal Tonsillopharyngitis

Dear Editor,

I read the study titled "The sensitivity and specificity of rapid antigen test in group A streptococcal tonsillopharyngitis" by Çoban et al. (1) with great interest. Çoban et al. emphasized a prevalent issue in pediatric practice and concluded that streptococcal tonsillopharyngitis was more prevalent in children than in adults and it was important since it might cause acute rheumatic fever. Another factor that makes this disease significant is that it is an infectious disease for which antibiotics are used frequently. Streptococcal tonsillopharyngitis is only seen in humans, and the only source of host and infection is humans. Many subtypes with regards to M protein have been defined. Cardinal findings in clinics are fever, sore throat, exudative tonsillitis and cervical lymphadenopathy. Maculopapular skin rashes, petechias in soft palate and scarlet fever may accompany. It is the most important bacterial agent leading to post infectious syndromes. Acute rheumatic fever, post streptococcal glomerulonephritis, Sydenham chorea and PANDAS syndrome are the main ones. Clinical findings are essential in the diagnosis of streptococcal tonsillopharyngitis. After the evaluation of clinical findings, it makes the clinical diagnosis of streptococcal approximately tonsillopharyngitis with 70-75% (2). Precise diagnosis is made with throat culture positivity. However, the fact that it takes 24-48 hours is the biggest disadvantage. Throat culture leads us to diagnosis with the possibility of 96%. In order to reduce the test time in throat culture, quick antigen tests have been developed. As far as the results of the national and international studies are concerned, the sensitivity of quick test is between 60-70% (3). If the clinical findings are in harmony with streptococcal tonsillopharyngitis and quick test is positive, penicillin treatment should be started immediately. If the quick test is negative, the result of throat culture should be expected. It was found in Çoban et al.'s (1) study that the sensitivity of quick diagnosis test of the 2163 cases was 68.1% and specificity was 92.2%. While false-negative rate of the test was 31.9%, false-positive rate was as low as 7.8%. While these values may be helpful in the early diagnosis of quick streptococcal test, in case of negativity, it supports the fact that the results of throat culture should be expected. Sufficient number of cases makes this study more valuable. This test is effective in reaching the diagnosis of streptococcal tonsillopharyngitis in the hospital where it is used.

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Author's response

Dear Editor,

We would like to thank dear Dr. Emin Ünüvar for his interest in and contributions to our study.

Group A streptococcal (GAS) tonsillopharyngitis comprises 20-30% of all sore throats. Appropriate antimicrobial treatment is crucial for the prevention of acute rheumatic fever and other suppurative complications. The throat wipe sample is essential for diagnosis through quick antigen test and/or GAS search with culture (1). Given the fact that most of the primary care physicians and some hospital physicians do not have the possibility of microbiologic tests, evaluation of clinical findings is still important for the diagnosis of the disease.

In the most commonly used Centor scoring, lack of coughing, age of 3-14, presence of tumor or tender lymphadenopathy, temperature over 38 degrees centigrade, exudative or hypertrophic of swelling tonsils get one point. Antibiotic is recommended for score 4 or over (2). Estimated positive predictive value of 4-point in scoring has been calculated as 48%; even this scoring does not sufficiently prevent the inappropriate use of antibiotics (3). More practical, applicable, catchy, new guidelines and approach schemas for diagnosis are needed. Increasing the laboratory facilities will also minimize the inappropriate use of antibiotics.

Best regards.

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