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The Importance of Rapid Antigen Testing on Rational Antibiotic Use

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Rapid antigen testing (RAT) has started to encourage the use of rational antibiotics in primary health care (family medicine department) in February 2017 in Turkey. The RAT is a practical test used to determine the presence of antigens of A group beta hemolytic streptococcus (AGS). This study aims to observe whether there is a difference in the rate of antibiotics prescription between years of 2016 and 2017, in which RAT was not used in the former and used in the later.

The most frequent bacterial agents of acute pharyngitis (AP) and tonsillopharyngitis (AT) are AGS. It is quite difficult to distinguish between viral or bacterial agents according to anamnesis, clinical and physical examination findings. Since the result of throat cultures requires 24-48 hours, various methods have been developed for fast determination the factors in AP and AT cases. The RAT test is one of them. The use of RAT is of great importance in reducing the use of irrational antibiotics and the cost of antibiotics.

A statistically significant difference was found in the antibiotic prescription of family physicians due to the use of RAT in the selected family medicine departments between the years of 2016 and 2017 ($p < 0.05$). The RAT is a rapid and reliable method for the diagnosis of streptococcal AP and AT in outpatient. When RAT is positive, it indicates streptococcal AP and AT. However, negative detection of the testing does not remove it from the diagnosis. It is also observed that the use of RAT creates an important pharmacoeconomic awareness in physicians.

Keywords: Rapid Antigen Testing, Rational antibiotics use, Acute Pharyngitis, Acute tonsillopharyngitis, A group beta hemolytic streptococcus

Biography:

Dr. Arslan is the head of pharmacology department in the Ankara Yildirim Beyazit University. His research interests focus on the experimental pathophysiology and inflammation of pulmonary and cardiovascular systems. He is the PhD supervisor for pharmacology and toxicology students.