

Prevalence of Positive Rapid Antigen Detection Test for Group A Streptococcus Among Patients With Respiratory Symptoms in Eastern Province, Kingdom of Saudi Arabia

Nadira Al-Baghli

Consultant family & community medicine, Professions medical education

During the COVID-19 pandemic, there was a dramatic upsurge in the prevalence of [respiratory symptoms](#), which may have altered the usual pattern of bacterial infections and relevant decision-making. This study aimed to investigate the prevalence of rapid antigen detection test (RADT) positivity for group A Streptococcus (GAS) in patients with respiratory symptoms and signs during the COVID-19 pandemic. In addition, we evaluated the association between a positive test and the modified Centor criteria in a population of children and adults with upper respiratory tract infections (URTIs). A prospective study was conducted in primary health care centres (PHCCs) and the paediatric emergency department (ED) of the Maternity and Children Hospital in Dammam City, Kingdom of Saudi Arabia (KSA). Trained physicians collected data from patients aged three years and older or their guardian(s) regarding URTI symptoms. The modified Centor score was calculated, and RADT was performed for all patients. Data were collected from 469 patients. The prevalence of positive RADT was 19 (4.1%), and the setting was associated with RADT positivity, as 14% of ED visitors tested positive compared with 0.6% of PHCC visitors. The [RADT](#) results had an area under the curve of 0.856 (95% confidence interval (CI)=0.774-0.939), with Centor scores of 2 and 3 having a sensitivity of 89.5%/78.9% and specificity of 70.6%/80.8%, respectively. Individuals with a score of 5 had the highest rate of positive RADT (33.3%, $P<0.001$); a score less than 0 excluded the possibility of GAS infection.

Conclusion: The Centor score can improve effective antibiotic prescribing; however, Centor scores ≥ 2 should be supplemented with an additional confirmatory test. The high specificity of RADT makes it a useful tool in preventing the prescription of unneeded antibiotics.

Biography

Consultant family and community medicine, in addition to professions medical education, academic trainer and clinical instructor in the family medicine academy, first health cluster, held positions as director of public health and director of infection control in eastern province, KSA. Has her expertise in EBM and passion in improving clinical practice and communication skills.

nadiraa@windowslive.com

Abstract received : November 14, 2023 | Abstract accepted : November 15, 2023 | Abstract published : 05-06-2024