

عنوان مقاله:

Evaluation of the diagnostic value of procalcitonin in acute pyelonephritis indices in patients referred to the hospital

محل انتشار:

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خلاصه مقاله:

Abstract Introduction: Uncomplicated urinary tract infection (UTI) is a widespread global ailment. The aim of this investigation was to evaluate the diagnostic efficacy of procalcitonin (PCT) in discriminating acute pyelonephritis from other lower urinary tract infections. **Methods:** This applied research concentrated on patients with acute pyelonephritis who were referred to Hazrat Valiasr Qaemshahr Hospital. A straightforward (random) sampling technique was implemented. Leukocyte count, ESR, serum CRP, and PCT measurements were obtained from all patients. **Results:** Procalcitonin demonstrated positive results in 98.5% of pyelonephritis cases and 5% of cystitis cases, signifying a statistically significant differentiation ($P=0.001$). The diagnostic accuracy of procalcitonin was 97.7%, while its sensitivity and specificity were 98.5% and 95%, respectively. A notable correlation between serum PCT and CRP levels was observed in patients with acute pyelonephritis ($P=0.038$). The serum level of PCT in patients with acute pyelonephritis did not manifest any statistically significant variances based on age, gender, or history of urinary tract infection ($P > 0.05$). **Discussion and Conclusion:** Based on the findings of this study and comparisons with existing research, it can be deduced that procalcitonin functions as a dependable indicator for distinguishing acute pyelonephritis from other urinary tract infections. Consequently, its utilization for this purpose is recommended. Ultimately, conducting further studies with a larger sample size and in a multicenter manner is advised to validate the findings obtained in this study.

کلمات کلیدی:

Keywords: Acute pyelonephritis, leukocyte count, erythrocyte sedimentation rate, C-reactive protein, procalcitonin

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