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NON-ENHANCED CT FINDINGS IN PATIENTS SUSPECTED OF ACUTE APPENDICITIS WITH NON-DIAGNOSTIC ULTRASONOGRAPHY

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ABSTRACT

Introduction: *In this study, we aimed to investigate the finding of non-enhanced CT assessment in a group of patients with non-diagnostic ultrasonography.*

Material and Method: *This cross-sectional study prospectively recruited patients with clinical symptoms and ultrasonograph findings suspicious of acute appendicitis but the appendix loop was not seen in the ultrasonograph evaluation by the radiologist, during a one-year interval. The main study variables were radiologic findings in the CT evaluation including diagnosis of appendicitis, diameter of appendix loop, appendix wall thickness, peri-appendix fat stranding, cecum wall thickness in comparison with the hepatic flexure wall, phlegmon, appendicolith, and other possible pathologies in the imaging. Various descriptive and analytic evaluations were done on the study variables.*

Results: *A total number of 129 patients with a mean age of 36.8 ± 15.7 were included in this study. Among these patients, appendicitis diagnosis via the CT evaluation was made in 12 (9.3%) of the patients. Also, 7 (5.4%) patients had appendix loop diameter ≥ 6 mm. The assessed appendix wall thickness was ≥ 3 mm in 6 (4.7%) of the cases and peri-appendix fat stranding was positive in only 6 (4.7%) of the cases. Eighty (62.0%) patients had other pathologies in the non-enhanced CT imaging. The appendix loop diameter ≥ 6 mm, appendix wall thickness ≥ 3 mm, peri-appendix fat stranding, presence of phlegmon, and thicker cecal wall were significantly associated with the diagnosis of appendicitis in the included sample of patients (P -values < 0.001).*

Conclusion: *This study presented the CT findings of patients suspected to have acute appendicitis with non-diagnostic ultrasonograph.*

KEYWORDS: *appendicitis, computed tomography, ultrasonography, acute abdomen, aiagnosis*

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