

Diagnosis and management of patients with clinically suspected acute pelvic inflammatory disease

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The present study was undertaken to investigate new diagnostic techniques in the diagnosis of pelvic inflammatory disease (PID). Laparoscopy was used both as a gold standard compared to other diagnostic modalities and also in the management of patients suspected of having PID. Furthermore, accuracy and reproducibility of laparoscopic findings was separately tested. The study group consisted of fertile aged women with clinically suspected acute PID.

Magnetic resonance imaging (MRI) proved to be more accurate than transvaginal ultrasound (TVS). In 61% of patients, laparoscopy confirmed the clinical diagnosis of PID, paralleling the results of several earlier reports. In 95% of the women with PID one or more additional laparoscopic procedures were performed. In 85% of patients without PID a therapeutic operative intervention was performed. Power Doppler TVS proved to be accurate in the diagnosis of PID. Diagnosis was based on earlier described specific sonomorphologic findings, which proved to be reproducible. Sonomorphologic criteria for appendicitis allowed TVS diagnosis of acute appendicitis. Different sonographic criteria for appendicitis and PID allowed distinction between these two conditions. Accuracy of visual laparoscopic finding of PID proved to be insensitive especially in mild disease. Intra- and interobserver reproducibility was only fair to poor.

Diagnostic accuracy of both MRI and power Doppler TVS in the diagnosis of PID was encouraging even if our relatively small study group prohibits definitive conclusions and recommendations. Acute-phase surgical laparoscopy proved safe. Of patients with PID, the cure rate was 100%, and no major complications occurred. Our study demonstrates that radical surgery is extremely rarely needed, especially since abscess formation is often unilateral. Most women without PID underwent some therapeutic procedure during laparoscopy, with further elective operations, antimicrobial therapy, and hospitalization avoided. Such management is likely to be highly cost-effective.

The therapeutic impact of the use of TVS in the diagnosis of appendicitis remains to be shown. Because of low observer accuracy of laparoscopic findings if PID an extended gold standard should be used in future clinical trials. Observer agreement studies are needed in order to develop reliable scoring system and to improve accuracy.

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