Jun 13, 2021

Diagnostic accuracy of pelvic imaging for acute pelvic inflammatory disease: protocol for a systematic review and meta-analysis

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 dx.doi.org/10.17504/protocols.io.bvsdn6a6

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ABSTRACT

Introduction

Acute pelvic inflammatory disease (PID) is one of the most common causes of the acute abdomen at an emergency department. Women of reproductive age who present acute lower abdominal pain need gynecological examination for the diagnosis of acute PID. It is not well-known how accurate imaging modalities such as contrast-enhanced computed tomography (CT) and magnetic resonance imaging (MRI) are for the diagnosis. If these modalities have enough diagnostic accuracy, they can alternate diagnostic tools from the gynecological examination.

Purpose

The purpose of this systematic review is to evaluate the diagnostic accuracy of pelvic imaging for acute PID among women of reproductive age.

Methods and analysis

This systematic review was adhered to the Preferred Reporting Items for a Systematic Review and Meta-analysis of Diagnostic Test Accuracy Studies (PRISMA-DTA) statement. We will include all studies on the diagnostic accuracy of pelvic imaging for evaluating acute PID. The target participants are women of reproductive age with acute lower abdominal pain who are suspicious of PID and required gynecological examinations. The target condition is acute PID including any combination of endometritis, salpingitis, tubo-ovarian abscess, and pelvic peritonitis. We expect studies conducted in emergency settings. The index test is pelvic imaging as contrast-enhanced CT and MRI. The reference standard is gynecological examinations defined as examinations by gynecologists using standard diagnostic criteria with or without laparoscopy or transcervical endometrial biopsy. The quality of studies will be evaluated by QUADAS-2. We will present a summary table of evidence, estimates of sensitivity and specificity with 95% confidence interval, and a receiver operating characteristic (ROC). The meta-analysis will be performed using a hierarchical summary ROC model.

Ethnics and dissemination

Data from previously performed studies will be analyzed. We will publish this systematic review in peer-reviewed journals.

ATTACHMENTS

PID_DTA_protocol.pdf

DOI

dx.doi.org/10.17504/protocols.io.bvsdn6a6

Citation: Yuji Okazaki, Yasushi Tsujimoto, Kohei Yamada, Takashi Ariie, Shunsuke Taito, Masahiro Banno, Yuki Kataoka, Yoshiaki Tsukizawa (06/13/2021). Diagnostic accuracy of pelvic imaging for acute pelvic inflammatory disease: protocol for a systematic review and meta-analysis. https://dx.doi.org/10.17504/protocols.io.bvsdn6a6

PROTOCOL CITATION

Yuji Okazaki, Yasushi Tsujimoto, Kohei Yamada, Takashi Ariie, Shunsuke Taito, Masahiro Banno, Yuki Kataoka, Yoshiaki Tsukizawa 2021. Diagnostic accuracy of pelvic imaging for acute pelvic inflammatory disease: protocol for a systematic review and meta-analysis. **protocols.io** https://dx.doi.org/10.17504/protocols.io.bvsdn6a6

KEYWORDS

pelvic inflammatory disease, computed tomography, magnetic resonance imaging, gynecological examination, diagnostic test accuracy

CREATED

Jun 13, 2021

LAST MODIFIED

Jun 13, 2021

PROTOCOL INTEGER ID

50725