Acute pelvic pain: common and unusual CT findings of gynecological diseases

L. Mazzamurro, E. Di Campli, A. Tavoletta, N. Civitareale, B. Seccia, R. Basilico, A.R. Cotroneo

Dipartimento di Neuroscienze ed Imaging, Sezione di Imaging Integrato e Terapie Radiologiche, Università G. D’Annunzio, Chieti

PURPOSE: to describe common and unusual computed tomography (CT) findings of female acute pain, focused on gynecological diseases.

BACKGROUND: acute pelvic pain is defined as a lower abdominal pain, sudden onset and during less then 72h. It represents a clinical challenge in everyday practice because of difficulty to establish the underlying cause (gastrointestinal, gynecological, genitourinary, vascular and other disorders). Although ultrasound (US) is the imaging modality of choice in the radiologic evaluation of the female patient with acute pelvic pain, the role of CT in the evaluation of abdominal and pelvic pain is constantly expanding; CT is indicated when US findings are equivocal, a bowel or genitourinary cause is initially suspected and complications are present [1].

IMAGING FINDINGS: many acute gynecological diseases such as ovarian cyst rupture, salpingitis, ovarian torsion usually show typical CT features; however they sometimes appear with unusual CT findings simulating other diseases. On the other hand, other less common gynecological pathologies such as degeneration, torsion or prolapse of a pedunculated submucosal fibroid, can show typical CT features.

CONCLUSION: Knowledge of the main CT findings of gynecological diseases causing acute pelvic pain is mandatory for radiologists in order to improve the differential diagnosis and patient management.

Degeneration of uterine fibroid

Hematocolpos

Salpingitis

Tubo-ovarian abscesses

Ovarian torsion

Ruptured corpus luteum

Ruptured ovarian endometriomas

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