

Approach to Radiologic Imaging and Diagnosis

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Abstract

Imaging plays a key role in the diagnostic evaluation of women for infertility. The pelvic causes of female infertility are varied and range from tubal and peritubal abnormalities to uterine, cervical, and ovarian disorders. In most cases, the imaging work-up begins with hysterosalpingography to evaluate fallopian tube patency. Uterine filling defects and contour abnormalities may be discovered at hysterosalpingography but typically require further characterization with hystero-graphic or pelvic ultrasonography (US) or pelvic magnetic resonance (MR) imaging. Hystero-graphic US helps differentiate among uterine synechiae, endometrial polyps, and submucosal leiomyomas. Pelvic US and MR imaging help further differentiate among uterine leiomyomas, adenomyosis, and the various müllerian duct anomalies, with MR imaging being the most sensitive modality for detecting endometriosis. The presence of cervical disease may be inferred initially on the basis of difficulty or failure of cervical cannulation at hysterosalpingography. Ovarian abnormalities are usually detected at US. The appropriate selection of imaging modalities and accurate characterization of the various pelvic causes of infertility are essential because the imaging findings help direct subsequent patient care.