Ultrasonographic features in the pre-operative diagnosis of primitive fallopian tube carcinoma

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Objectives: To review the characteristic ultrasound features of primary fallopian tube carcinoma (PFTC) and its relationship to the clinical history in order to establish specific findings useful for the preoperative diagnosis.

Method: An extensive review of the current literature was done on Medline via PubMed by using the following key-words: Primary Fallopian tube cancer, tubal cancer, adnexal malignancy mass, and ultrasound.

Results: PFTC corresponds to a complex, sausage shaped structures or cystic adnexal masses. A thick and an irregular capsule is in favour of a malignant lesion. Three-dimensional ultrasound is superior to 2-D ultrasound for the detection of tubal wall irregularities such as papillary projections or pseudosepta who were suggestive of tubal malignancy and allows a better assessment of the extent of tumor infiltration through the capsule. Neovascularization with low resistance indices are typical of tubal malignancy. Three-dimensional power Doppler sonography accurately detected structural abnormalities of the malignant tumor vessels which are randomly dispersed within the papillary projections. Intra uterine collection and peritumoral fluid are often finded but ascite could be also an indirect proof of peritoneal carcinosis.

Conclusion: Sausage shaped structures or cystic adnexal masses associated with imaging findings such as papillary projections and neovascularization with low resistance indices are in favour of PFTC. A standardized terminology, high-frequency and 3-D power Doppler could improve diagnostic performance by allowing a better assessment of tubal wall and chaotic vessels architecture of these tumors.

Biography

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