Transitional cell tumors of the ovary: MR and CT findings

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- 목전: To determine the CT and MR findings of the variable spectrum of the transitional cell tumors of the ovary, rare epithelial neoplasms of the ovary
- We retrospectively reviewed CT and MR imagings of 16 patients (10 benign, 6 malignant) with pathologically proven 21 transitional cell tumors of the ovary (11benign, 1 borderline, 3 malignant Brenner tumors, 6 transitional cell carcinomas (TCCs)). Ten MR and 6 CT imagings were analyzed for location, size, configuration, signal intensity, enhancement pattern, presence or absence of direct invasion, carcinomatosis, calcification and coexisting gynecologic tumors.
- The patients' median age was 58 years (range 40-68 years), and the mean size of the measurable tumors was 8.3 cm (2.1-14 cm). Five patients have bilateral tumors (1 benign, 1 malignant Brenner tumor and 3 TCCs). Seventeen tumors detected on CT or MRI showed cystic nature in 6 (2 benign, 1 borderline, 1 malignant Brenner tumors and 3 TCCs), homogeneous solid nature in 5 benign Brenner tumors, mixed nature in 4 (2 malignant Brenner tumors and 2 TCCs), and heterogeneous solid nature in 2 TCCs. All solid components showed T2 dark or intermediate signal intensity and homogeneous enhancement except for mixed lesions. One patient with malignant Brenner tumor and 3 patients with TCC had seeding nodules in pelvic cavity and direct invasion to adjacent organs and 1 patient with TCC had distant perihepatic seeding masses. Calcifications were noted only in 2 benign Brenner tumors. Four patients with benign Brenner tumor had coexisting gynecologic tumors (1 serous cystadenocarinoma, 1 serous cystadenoma, 1 endometrioid carcinoama of uterus and 1 cervical cancer).
- Benign Brenner tumors show homogeneous solid nature or cystic nature without enhancing mural nodule. Malignant Brenner tumor and TCC appear to be mixed nature or heterogeneous solid mass with T2 dark signal intensity, and show high incidence of direct invasion of adjacent organs and low incidence of distant metastasis.