Objectives
To describe clinical and ultrasound features of malignant ovarian masses in pregnant women.

Methods
This is a retrospective study. Twenty-two women with a histological diagnosis of malignant ovarian mass detected during pregnancy and with a preoperative ultrasound examination were identified between 2000 and 2017. Ultrasound characteristics of the lesions were described by using the terms of the International Ovarian Tumor Analysis (IOTA) group.

Results
The median age was 32.5 (range, 23-42) years old. 2/22 (9%) patients had a mucinous borderline tumor, 8/22 (36.4%) had a serous or endocervical-type borderline tumor, 7/22 (31.8%) had a primary epithelial ovarian carcinoma and 5/22 (22.8%) had a metastatic tumor to the ovary. On ultrasound, mucinous ovarian borderline tumors were described as multilocular (1/2,50%) or multilocular-solid (1/2,50%) lesions, with a minimal vascularization. Serous/endocervical-type borderline tumors were described as unilocular (3/8, 37.5%) or multilocular-solid (5/8, 62.5%) masses and all of them had papillary projections.

The vast majority of the invasive epithelial ovarian cancers were described as multilocular-solid masses (5/7, 71.4%), whereas 1/7 (14.3%) was unilocular-solid and 1/7 (14.3%) was described as solid mass, presenting papillary projections in 3/7 (42.9%) cases; most of the epithelial ovarian carcinomas (5/7, 71.4%) were moderately or highly vascularized. All metastatic tumors (5/5, 100%) appeared as solid masses and 4/5 (80%) had a high vascularization.

Conclusion
Malignant ovarian masses in pregnancy represent a rare pathological condition. On ultrasound examination, the morphological features are similar to those described in non-pregnant patients.