previous transvaginal ultrasound performed by gynaecologists or radiologists. Patients with a diagnosis of BOT by histopathological findings were included. Descriptive analyses were performed.

**Results** Of 18 patients diagnosed with BOT, with a mean age of 39 (± 17) years, 11 (73%) were premenopausal, their median CA 125 was 115 (± 32) U/mL. The mean maximum diameter of the lesion was 54 (± 72) mm, 9 (60%) were described as unilocular solids, 5 (33%) as multilocular solids and 1 (7%) as unilocular. In addition to the classic criteria such as vascularization in the papilla found in 15 (83%) of the cases, we found novel characteristics such as: a low level of echogenicity content in 14 (78%) and a pattern of microcystic tissue that resembles a group of small bubbles in 12 (67%) of these tumors. Furthermore, when these three characteristics were positive, the tumors were diagnosed by histopathology as being of serous origin.

**Conclusion** This study proposes additional characteristics that are of interest for the approach and diagnosis of BOT by ultrasound.

**Methodology** A retrospective study of patients who underwent transvaginal ultrasound with a diagnosis of adnexal mass and a subsequent surgery between 2012 and 2022 at a tertiary referral university hospital with a gynaecological oncology unit. The IOTA ADNEX model was used to estimate the probability of benignancy or malignancy, with a cut-off of 10% for malignancy. Pathology was the reference standard used. Descriptive statistics and bivariate analysis were performed.

**Results** For a total of 757 patients, the IOTA ADNEX model identified 171 (22.4%) masses as malignant, of which 64 (37.4%) were confirmed as BOT. 18 (28%) masses were confirmed as TP by histopathology and 46 (72%) as FP. Its usual ultrasound characteristics were similar with the particularity of having a greater number of papillae and blood vessels in papillary projections in the TP. Therefore, additional sonographic features, such as the presence of a low level of echogenicity content and a pattern of microcystic tissue resembling a cluster of tiny bubbles, were evaluated. These characteristics were relevant in most of the TP. Regarding the FP, histopathology showed that 40% were serous cystadenofibrome, 20% ovarian tube abscess, 10% Low-grade serous carcinomas, among others.

**Conclusion** Our findings show how some usual and novel features in ultrasound are necessary for an adequate differentiation of BOT.

**Introduction/Background** Currently, the diagnosis of borderline ovarian tumors (BOT) by ultrasound is a challenge. Our study proposes how to differentiate between true positives (TP) and false positives (FP) in the diagnosis of BOT.

**Methodology** A retrospective study of patients who underwent transvaginal ultrasound with a diagnosis of adnexal mass and a subsequent surgery between 2012 and 2022 at a tertiary referral university hospital with a gynaecological oncology unit. The IOTA ADNEX model was used to estimate the probability of benignancy or malignancy, with a cut-off of 10% for malignancy. Pathology was the reference standard used. Descriptive statistics and bivariate analysis were performed.

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**Conclusion** Our findings show how some usual and novel features in ultrasound are necessary for an adequate differentiation of BOT.