

## Borderline ovarian tumours: diagnosis and treatment in a regional centre

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### Background

Borderline ovarian tumours (BOTs) represent an intermediate entity among benign epithelial ovarian cysts and ovarian carcinomas. The designation of this category constituted a great advancement in classification and treatment, since its behaviour is less aggressive than the ovarian cancer. An accurate diagnosis and management according to the current stage may benefit the patient.

Evidence of the BOT diagnosis increase un the last two years in our centre made us to consider this review.

### Objective

To review the cases of borderline ovarian tumours (BOTs) in a regional centre in order to evaluate the available preoperative information; intraoperative biopsy inform as well as the final diagnosis and them correlation.

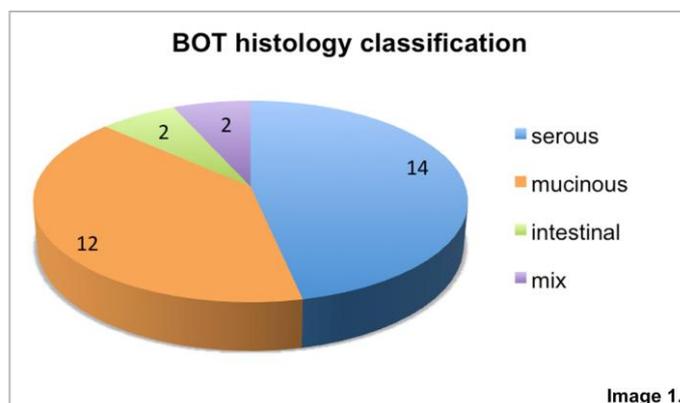
### Materials & Methods

Retrospective study of patients surgically attended in our service with diagnosis of BOT, from 1994 to 2012. We include either intraoperative or postoperative diagnosis of BOT.

### Results

From the 35 patients with BOT diagnosis, in any moment of the pathological diagnosis (in intra/postoperative biopsy), 30 had a definitive diagnosis of BOT (14 serous, 12 mucinous, 2 instestinal type and 2 mix); 4 ovarian carcinoma and 1 peritoneal pseudomixoma. In 6 patients bilateral BOT was presented (histological examination: 5 serous BOT and 1 mucinous BOT).

(Image 1)



	Frequency	Percentage	Valid percentage
<b>1<sup>st</sup> Symptom</b>	<b>30</b>		<b>100</b>
Abdominal pain	10	33,3	40
Abdominal distension	5	16,7	20
Casual discovery	9	30	36
Others	1	3,3	4
Unknown	5	16,7	
<b>1<sup>st</sup> Diagnosis</b>	<b>30</b>		<b>100</b>
US	19	63,3	76
Pelvic CT	2	6,7	8
Others	4	13,3	16
Unknown	5	16,7	
<b>Ultrasonography study</b>	<b>25</b>		<b>83,3</b>
Presence of papillae or septa	6	20	24
Not evidence of papillae or septa	19	63,3	76
<b>Other image study</b>	<b>18</b>		<b>72</b>
CT	17	56,7	68
RMN	1	3,3	4
No	7	23,3	28
Unknown	5	1,7	
<b>Image malignancy suspicion</b>	<b>30</b>		
Yes	13	43,3	
No	12	40	
Unknown	5	16,1	
<b>Serum makers</b>			
Realisation	23		76,7
Positive	6	26,1	
Negative	17	73,9	
Not realisation	2		6,7
Unknown	5		16,67

An intraoperative biopsy was performed in 20/35 cases; from them 11 matched up with the definitive BOT diagnosis. About the others: 3 informed as benign resulted into BOT, 2 informed as carcinoma into BOT and 4 informed as BOT had carcinoma as definitive diagnosis.

FIGO stage at diagnosis were: 28 cases were at I and 2 at III (both with progression-free survival at 4 years)

Women age mean at diagnosis was 41,47 (11-75). 56,7 % of patients were ≤ 40 years old. From this group, 11 were candidate for fertility-sparing surgery (64,7%).

Referring to the diagnosis (in 5 cases no preoperative dates were available): see table 1.

### *Conclusion*

Abdominal pain, discomfort or distension is the main clinical manifestation in our patients. Casual discoveries by routine gynaecology examinations or other consulting reasons are not negligible taking into consideration the potential malignancy of this pathology.

Abdominal symptomatology in women with ultrasound cyst detection must aware us. Additional image examinations may help for malignancy orientation. Although preoperative information (symptoms, serum makers and image) has not enough specify for malignancy differentiation; it seems that intraoperative biopsy is the most reliable tool to avoid iatrogenic surgery. Especially in young women who can benefit from a fertility-sparing surgery in order to preserve benign ovarian function.

### *References*

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