Clinical significance of HER2/neu, immunohistochemical profiling of MUC1, Estrogen and Progesterone receptor expression in malignant epithelial ovarian tumors

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Abstract 2022-RA-1312-ESGO Figure 1 Overview of toxicities leading to dose reduction and treatment discontinuation in 3wC and 3wC cohorts

Conclusion In spite of the limitations of our retrospective analysis, 3wCP appears as feasible as 3wC monotherapy for frail ≥70 yo FIGO stage III/IV OC patients, in keeping with the EWOC-1 data, and should be considered in this cohort given that it has been shown to achieve better survival outcomes. Toxicity profiles differ and dose reductions may be required in each treatment arm.

Immunohistochemical profiling of macrophage subtypes in the microenvironment of ovarian tumours in young women

Introduction/Background Ovarian cancer is a common malignancy associated with poor outcomes. The tumour microenvironment (TME) has been shown to be important in tumorigenesis and prognosis. Tumour associated macrophages (TAM) are the most abundant type of immune cells in TME. Dependent on stimuli, TAM may become anti-tumorigenic M1-type or pro-tumorigenic M2-type (CD163+). The significance of TAM in young women with ovarian tumours has not been previously established. We aimed to characterise the TAM in the TME of both borderline (BOT) and malignant ovarian tumours in young women.

Methodology Patients under the age of 50, who underwent surgical management for borderline or malignant ovarian tumours at a large tertiary UK institution in 2010–2015 were included. Full clinical, pathological and outcome data were collected. Primary tumour sections were reviewed and immunohistochemically stained. Tumour associated macrophages (TAM) were categorised as M1-type CD163+ or M2-type CD163+.

Results 57 patients; 23 with BOT and 24 cancers, were included. The mean age was 38 years, and the commonest histological type was serous carcinoma (n=21). 10 patients; 10 with BOT and 5 cancers, were included. The mean age was 38 years, and the commonest histological type was serous carcinoma (n=21). Internal-tumoral
CD68 and CD163 were highly significantly expressed in cancers compared with BOT (p<0.001 and 0.004 respectively). Similarly, stromal CD163 mean count and percentage were more abundant in malignant tumours (p=0.03 and 0.02). Mean stromal CD68 count and percentage correlated positively with mean CD163 stromal count and percentage (p=0.02). Risk of malignancy index was a significant predictor of ovarian cancer diagnosis (p=0.04). 15 cancer patients died of the disease. There was no significant association between TAM expression and patient survival.

Conclusion TAM subtypes analysis in ovarian neoplasia of young women confirms higher expression in malignant compared with borderline ovarian tumours. This might have implications on their pathogenesis and management.

Abstracts

**A NOVEL LAPAROSCOPIC APPROACH TO LARGE MALIGNANT OVARIAN MASSES**

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Introduction/Background The uptake of a minimally invasive approach in the management of gynaecological malignancies has increased over the years, because of advancement in skills, equipment, and the advantages of a swifter recovery, lower blood loss and reduction in the length of hospitalisation. However, this has been viewed with much hesitance in the realm of ovarian malignancies due to fear of spill and incomplete clearance of tumour, especially when the tumours are large.

Methodology We describe two cases in which the large pelvic masses (both about 12 cm in size) were handled in an oncoscopically sound manner, allowing for accurate intra abdominal assessment of disease, and removal of the ovarian mass without surgical spill. The first is that of an ovarian immature teratoma with gliomatosis peritonei in a 6 year old girl, the second is that of a 35 year old lady with a mucinous ovarian tumour with significantly elevated alpha-feto-protein levels, with no evidence of distal or nodal metastases. A laparoscopic approach was undertaken to remove this mass with the steps outlined below.

1. Supraumbilical camera port placement and intra abdominal survey
2. Peritoneal washings
3. Tilting patient to expose the gonadal vessels; isolating the ureter before performing a unilateral salpingo oophorectomy (USO)
4. Putting the entire USO specimen into a 6 litre retrieval bag and removal via the suprapubic port with manual morcellation
5. Omental biopsy, examination of bowel and mesentery, digital palpation of the retroperitoneal lymph nodes performed
6. Excision of pouch of Douglas (POD) lesions performed.

The second case was approached in a similar manner, excluding the final step.

Conclusion In carefully selected cases of ovarian malignancy, a minimally invasive approach can be undertaken safely.

**INTERVAL DISEASE SURGERY BY ROBOTIC APPROACH IN OVARIAN CANCER**

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Abstract 2022-RA-1326-ESGO Figure 1 Disease free survival kaplan-meier graphic

Introduction/Background Ovarian cancer is one of the most lethal gynaecological malignancies. This is because early diagnosis is difficult, and it usually presents in advanced stages. In these cases, randomized controlled trials have indicated that neoadjuvant chemotherapy (NACT) followed by interval disease surgery (IDS) offers similar of oncological and survival outcomes than primary surgery, and tumor burden remains is the principal poor prognostic factor. Historically, the surgical approach for these patients was by an explorative laparotomy. The role of the minimal invasive surgery (MIS) remains unclear. Thus, the purpose of our study is to evaluate the application of robotic surgery.

Methodology A cohort retrospective study with prospectively collected data was performed including patients with advanced ovarian cancer who underwent to NACT and presented a radiological and serological favourable response and was possible to perform an optimal cytoreduction (R0) by robotic surgery. Clinicopathological and survival outcomes, including overall survival (OS) and disease-free survival (DFS), were collected and analyzed. We have compared this selected group of patients with a historical cohort that includes patients with similar response taxes who underwent to laparotomic surgery also obtaining an optimal cytoreduction.