GROWING TERATOMA SYNDROME IN AN UNUSUAL CASE OF AGGRESSIVE STAGE IA IMMATURE TERATOMA OF THE OVARY

A. Glickman¹, B. Gil Ibáñez¹, J. Pahisa¹, P. Fusté¹, M. Del Pino¹, I. Nicolás¹, N Agustí¹, N Carreras¹, E. Mensión¹, A. Torné¹

¹Hospital Clínic i Provincial de Barcelona, Gynaecologic Oncology Unit, Barcelona, Spain

INTRODUCTION

Germ cell tumors (GCT) represent less than 3% of all ovarian malignancies. They occur predominantly at young ages. The immature ovarian teratoma is the third commonest of the GCT, accounting for less than 1% of ovarian cancer cases worldwide. Growing teratoma syndrome (GTS) is a clinical entity characterized by a rapidly enlarging benign tumor mass, that arises during or after adjuvant chemotherapy for malignant ovarian GCT in presence of normal tumor markers. Its incidence has been reported to be from 2.5% to 19% of immature teratomas. We report an unusual case of GTS in a patient previously treated for recurrent stage IA immature teratoma of the ovary.

PATIENTS AND RESULTS

A 32-year-old nulligravida underwent right **laparoscopic salpingo-oophorectomy** because of **suspected teratoma**. Preoperative transvaginal ultrasound: 12cm complex cystic ovarian mass, with thin wall, a central solid component and two septa. CT did not show carcinomatosis nor other signs of disseminated disease. Serum tumor markers were normal except from AFP=156ng/ml. Removal of specimen was performed within an endobag. Intraoperative histological examination: benign teratoma. Final pathology revealed the presence of **isolated foci of neuroepithelial immature tissue in one low magnification field** of only one histological preparation, prompting the diagnosis of grade-1 stage IA immature teratoma. No malignant cells were found in the peritoneal washings. Tumor board decided to perform follow-up and this was agreed with the patient.

Three months after surgery the patient consulted again for abdominal pain. Transvaginal ultrasound: 15 cm complex solid mass in the right adnexal fossa. CT described a vast 20cm pelvic mass, a 7 cm left iliac fossa tumor, two Douglas pouch implants (2 and 2.5 cm), one 1.5 cm subhepatic implant and a 2 cm right iliac fossa implant. Elevated serum tumor markers were: CA-125=250U/ml, CA-19.9=97U/ml, TAG-72=19.8U/ml and AFP=3054ng/ml. Optimal **citorreductive open surgery** was performed, removing the pelvic tumor, cecal appendix, greater omentum and implants in Douglas pouch, uterine serosa, left ovarian surface, pelvic peritoneum and sigmoid colon serosa. Final pathology: **grade-3 immature teratoma in all resected lesions**. The patient underwent adjuvant chemotherapy postoperatively with cisplatin, etoposide, and bleomycin (BEP x 4 cycles).

Five months after surgery, a control CT scan was performed showing multiple 3 to 5 cm implants in the abdominal cavity. All tumor markers were normal. Another **complete citorreduction** that required a right hemicolectomy was achieved. Final pathology informed **39 implants**, all of them presenting **mature teratoma** histology. Close follow-up was agreed.

CT SCAN BEFORE 1ST SURGERY

CT SCAN AT FIRST RELAPSE:
IMMATURE TERATOMA

CT SCAN AT SECOND RELAPSE:
MATURE TERATOMA (GTS)

CONCLUSION

Immature teratoma is an aggressive tumor that usually shows a good response to chemotherapy. Its aggressiveness remains on the proportion of tissue containing immature neural elements found. The occurrence of GTS should be bared in mind when dealing with immature teratoma. Surgical treatment with no residual disease is fundamental and should always be attempted. Long-term close follow-up is always needed.