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## Ovarian Germ Cell Tumours: Cancer Institute (WIA), Adyar Experience over 10 years including QOL Data

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### BACKGROUND:

Ovarian germ cell tumours are highly curable malignancies which affect young women of childbearing potential. They usually present in early stages and fertility-preserving surgery followed by adjuvant chemotherapy is considered standard of care. The quality of life issues of long-term survivorship are of great importance among the young survivors.

### AIMS:

1. To study the clinical profile and outcome of Malignant Ovarian germ Cell tumours (MOGCT).
2. To evaluate the role of laparotomy in assessing the nature of post-chemotherapy residue in ovarian germ cell tumours
3. Analyze the quality of life among long-term survivors.

### PATIENTS AND METHODS:

Patients diagnosed as MOGCT during the period 1995-2005 was retrospectively analysed for Clinico-pathological profile, outcomes, Post chemotherapy status and Postoperative Histopathology. In 50 Survivors of MOGCT Quality of analysis was conducted using two questionnaires, EORTC QLQ-C30 and EORTC OV 28.

### RESULTS:

Of the 1125 case of Ovarian cancers diagnosed during the study period MOGCT constituted 103 patients (9.1 %). The median age at diagnosis was 18 years (7-45). 14.5 % of patients were in the premenarcheal age. Mean duration of symptoms were 2.2 months (1-8). Acute abdomen due to torsion was seen in (7.7%). Fertility preservation surgery was performed in 82 patients (79.6%). BEP was administered in 96.2 % of the patients who received

chemotherapy. Stage distribution for Stage I – IV was 43.8%, 9 %, 33.7% and 13.5% respectively. Dysgerminoma was the commonest subtype and constituted 41%. Histopathological examination of the residual masses in the 29 patients who underwent laparotomy revealed necrosis in 16 patients, immature teratoma in 7 patients, mature teratoma in 3 and viable tumour in 3 patients. Fourteen out of 17 patients with teratomatous elements who had completed chemotherapy had residual masses. Of these, 11 patients underwent laparotomy out of which 8 had immature teratoma or viable disease. None of the 7 patients with dysgerminoma had viable tumour on laparotomy. None of the 17 patients who had normalization of serum tumour markers after two cycles of chemotherapy had residual viable tumour. The 5 years and 10 years disease free survival was 80.5 % and 78.4 % respectively and 5 and 10 years overall survival was 85%. 91.6% patients regained their menstrual cycles in the fertility preserved group. 11 successful deliveries were noted with 50 % of the fertility preserved group remaining unmarried. Total QOL score was not statistically significant among fertility preserved and unpreserved group. Both had high scores with a mean of 90.47 and 77.65 respectively.

### CONCLUSIONS

Conservative surgery and BEP based chemotherapy can cure majority of patients with MOGCT. Post chemotherapy laparotomy was not found to be beneficial in tumours without teratomatous component, and normalization of tumour markers after two cycles of chemotherapy. The general psychological health and total quality of life is quite good for survivors of ovarian germ cell tumour survivors.

