

Paediatric Extracranial Germ Cell Tumours: A Retrospective Review

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Abstract

Introduction: Germ cell tumours (GCTs) are rare, constituting 3% of all childhood malignancies. The aim of this study was to analyse the epidemiology and outcome of these patients. **Materials and Methods:** A retrospective, cohort study was conducted on 38 paediatric patients presenting with extracranial GCTs, treated at the Singapore General Hospital, Tan Tock Seng Hospital and Kangar Kerbau Women's and Children's Hospital from 1 January 1989 to 30 June 1999. The median age at diagnosis was 1.7 years (0 to 13 years). **Results:** There was no sex or racial preponderance. Eighteen patients (47.3%) had teratomas, 16 (42.1%) had yolk sac tumours, 1 (2.6%) had dysgerminoma and 3 (7.9%) had mixed GCTs. Thirty-four patients (89.5%) had Stage I disease, 1 (2.6%) had Stage II disease, 1 (2.6%) had Stage III disease and 2 (5.3%) had metastatic disease. Complete tumour resection was achieved in 36 of the 38 patients (95%). Cisplatin-based combination chemotherapy was given to 11 patients (28.9%). None of the patients received radiotherapy. Complications from chemotherapy included anaemia requiring packed red cell transfusion ($n = 3$), Port-a-cath® sepsis requiring removal ($n = 1$), febrile neutropenia ($n = 1$) and nephropathy ($n = 1$). **Conclusion:** Using the Kaplan-Meier life tables, the overall and event-free survivals at 10 years for the patients with malignant GCTs were 96% and 88%, respectively, with a mean follow-up period of 5.1 years (0.7 to 10 years). The majority of the patients presented with early Stage I disease and this contributed to our high survival rate.

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