

chemotherapy. In Lugano III, 12 events occurred: 6 DOD during initial treatment, one progression, 5 relapses. All of these patients had received platinum-based chemotherapy. Of the 5 relapses, 4 could be salvaged by high-dose platinum chemotherapy or other regimens. One patient died after high-dose platinum chemotherapy.

GCT-13 Treatment outcome of extracranial germ cell tumours in Chinese children in Hong Kong

P.W. Yau¹, C.H. Li², M.K. Shing³, S.C. Ling⁴, G.C.F. Chan⁵

¹Department of Paediatrics, Queen Elizabeth Hospital, Hong Kong SAR, China; ²Department of Paediatrics, Tuen Mun Hospital, Hong Kong SAR, China; ³Department of Paediatrics, Prince of Wales Hospital, Hong Kong SAR, China; ⁴Department of Paediatrics, Princess Margaret Hospital, Hong Kong SAR, China; ⁵Department of Paediatrics, Queen Mary Hospital, Hong Kong SAR, China

Background: We reviewed the treatment outcome for children with extracranial germ cell tumour (GCT) in Hong Kong.

Methods: Prospective territory-wide cohort study of children with GCT treated in five paediatric oncology centres in Hong Kong from January 1995 to December 2017. All patients were treated with a unified treatment protocol (HK-GCT protocol, adopted from CCLG GC protocol). Surgery was the only treatment for non-malignant GCT or early-stage malignant GCT. Carboplatin/Etoposide/Bleomycin (JEB) chemotherapy was directed to advanced stage disease.

Results: 205 patients enrolled (5% of childhood cancers in Hong Kong compared with 3% in Western populations). Age-range is day one of age to 18.6 years. The majority groups of histology were teratoma (51.7%), yolk-sac tumour (25.9%), mixed GCT (13.2%) and germinoma (5.4%). The primary sites were gonad (53.2%), mediastinum (15.6%), sacrococcygeal region (14.6%), abdomen (8.8%), pelvic (2.4%) and non-CNS head & neck (1%). The stages of the GCT patients were I (63.9%), II (6.8%), III (16.6%) and IV (12.7%) respectively. 58% patients were treated with surgery alone and 38.5% patients received JEB chemotherapy. The overall 5-year overall-survival was 91.3% ($\pm 2\%$) and 5-year event-free-survival was 87.1% ($\pm 2\%$). The median follow-up time was 8.3 years with 163 patients (79.5%) alive and disease-free. Eighteen cases relapsed (8.8%), 16 patients died (7.8%) and 26 patients lost to follow-up (12.7%). Seven patients (3.4%) developed second cancer. Current treatment of extracranial GCT in Chinese children is effective and comparable to Western studies; risk-stratified treatment is effective/safe. The second cancers deserve further investigation for underlying risk factors.

GCT-14 Rare localization in 44 paediatric germ cell tumours

G.E. Martins¹, A.G. Vieira¹, C.D. Macedo², R. Melaragno³, F.W. de Faria⁴, M.T. Almeida⁵, L.F. Lopes¹

¹Department Pediatric Oncology, Barretos Children's Cancer Hospital, Barretos, Brazil; ²Department Pediatric Oncology, Unifesp/GRAACC, São Paulo, Brazil; ³Department of Pediatric Oncology, Santa Marcelina Hospital, São Paulo, Brazil; ⁴Department of Pediatric Hematology and Oncology, Children's Hospital of Brasília, Brasília, Brazil; ⁵Department of Pediatric Hematology and Oncology, University of Sao Paulo, Sao Paulo, Brazil

Background: There are few studies describing germ cell tumours (GCT) arising from rare primary sites such as head and neck, vagina among others.

Methods: We reviewed three National Brazilian Protocols (GCT 91, 99 and 2008) and identified 44 cases of GCTs arising from rare regions.

Results: Childhood GCT arising from kidney, dorsal region, pericardial, midline between stomach and esophagus, uterus, abdomen, vagina and head neck were identified. Vaginal GCT accounted for 27.9% of the cases, head and neck 41.8% and others 30.3%. From 18 cases of head & neck, histology were for the majority pure or immature teratoma, followed by yolk-sac tumour (YST) less often, then embryonal carcinoma and mixed GCTs. The most common histological subtypes of vaginal disease were YST. Most vaginal tumours were high risk, in contrast with head & neck tumours, where the majority were low-risk. Overall survival (5y OS) was 83.3%, 93.8% and 84.6% for vagina, head & neck, and rare sites, respectively. GCTs arising in rare locations with malignant histology could be treated with excellent rates of survival including the ones who presented vaginal primary. Usually tumours in rare sites lead to worse rates of survival in relation to other rare sites. This may occur due to resection and/or staging, since 83% of these tumours were classified as high-risk. Regarding benign tumours, the survival rate was related exclusively to resection.

GCT-15 Overcoming patient factors in the care of underserved testicular cancer patients

N. Chertack MD¹, R. Ghandour MD¹, N. Singla MD¹, Y. Freifeld MD¹, V. Marguis MD¹, S. Woldu MD¹, A. Bagrodia MD¹

¹Department of Urology, University of Texas Southwestern, Dallas, USA

Background: To determine whether patient factors at a safety net hospital are overcome through the standardized treatment of testicular cancer (TC) at a university tertiary care center.

Methods: The electronic medical records of patients who underwent orchiectomy at our university and safety net hospitals from 2006 to 2018 were reviewed. Variables were compared based on treatment setting. Comparison of continuous variables were reported as medians, and categorical variables were reported as percentages.

Results: 95 patients (47%) at the university hospital and 106 patients (53%) at the safety net hospital were included. Safety net patients had delayed presentation after symptom onset (median 65 vs 31 days, $p=0.001$), were more likely to initially present to the emergency department (76% vs 8%, $p<0.001$), and had shorter median time from diagnosis to orchiectomy (1 vs 4 days, $p<0.001$). These patients had larger median tumour size (50 vs 30 mm, $p<0.001$), were more likely to have higher T-stage ($p=0.018$), were less likely to be Stage I (58% vs 73%, $p=0.028$) and more likely to be Stage III (23% vs 9%, $p=0.013$). However, there was no significant difference in median numbers of surveillance imaging (3 vs 3 CT scans, $p=0.77$), urology clinic visits (4 vs 4 visits, $p=0.73$), rate of cancer recurrence (13% vs 9%, $p=0.51$), or mortality (4% vs 0%, $p=0.12$) between safety net and university patients (Table 1). The integrated care of safety net patients at our academic centre appears to overcome socioeconomic barriers that exist in the treatment of testicular cancer.