A remnant of the coccyx may lead to local recurrence. However, there is difficult to recognize the transition between coccyx and sacrum. Besides that, the tumour can infiltrate the sacrum and more extensive resection could be necessary. Intraoperative magnetic resonance imaging (MRI) can be used to assist resection of central nervous system tumours. We adapted this technique to sacrococcygeal tumours. The aim of this study was to discuss the operative technique of image guidance with MRI in the surgical management of sacrococcygeal tumours.
Methods: Retrospective analyses of the sacrococcygeal germ cell tumour operations that intraoperative MRI was used for, with a two Tesla magnet with a patient transportation system.
Results: There were 5 patients: 3 male and 2 female. Age at procedure was: 3 days, 4 months, 3 years, 4 years and 4 years. Two procedures were primary resection (one immature and one mature teratoma), and three for relapse (one in first year and two in second). The relapses were yolk sac tumour. MRI was used mainly to verify the coccyx resection in two cases, coccyx resection and complete tumour resection in one and level of sacrum resection in two cases. In two cases, the MRI demonstrated residual tumour and the need for more resection. In conclusion, intraoperative MRI could facilitate total resection of sacrococcygeal tumours through identification of remnant tumour in the surgical site and could help to confirm the extent of bone resection.

GCT-60 Sacrococcygeal teratoma in children: Audit on clinical outcomes from a single centre

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Background: Due to anatomical location, surgical excision of sacrococcygeal teratoma (SCT) may cause neuropathic bowel and bladder. This audit reviewed our clinical practice in SCT management and assessed post-operative functional outcomes.
Methods: A retrospective single-institution audit performed at a tertiary centre from November 2008 to November 2018. Electronic database used to extract patients' clinical information which was recorded using a pre-designed data-collection proforma. Data were analysed and compared with the UK Children's Cancer Study Group's Experience [1].
Results: 21 neonates with SCTs based on imaging were audited. Only 17 patients had confirmed SCT on histopathology (11 females, 6 males). Thirteen (76%) had mature teratoma (MT), three immature (18%), one MT with focal immature elements (6%), one had a malignant germ-cell-tumour (6%). The excluded four patients had other diagnoses (perivascular myoid tumour, choristoma, yolk sac tumour, not specified). All patients survived and none had recurrence. Ten patients (59%) developed post-operative constipation mainly managed with laxatives. Of those, two had neuropathic bowel, one chronic whereas seven only had transient constipation. Six patients (35%) had post-operative urinary problems. Of those, four had neuropathic bladder managed with clean intermittent catheterisation, one had urinary frequency and one had only transient urinary problems. Two children (12%) had abnormal gait. In two cases, there was no information recorded and in one case gait assessment was not appropriate due to the patient's age. Finally, regarding cosmesis, three patients (18%) developed asymmetry, four puckering (23%) and four had wound dehiscence (23%). In three patients, no information was recorded.

Reference

[1] Huddart S., Mann J., Robinson K., *et al.* Sacrococcygeal teratomas: the UK Children's Cancer Study Group's experience. *Pediatr Surg Int*. 2003 Apr;19(1–2):47–51.

GCT-61 Controlled aspiration of large paediatric ovarian cystic tumours

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Background: Aetiology of large ovarian cystic masses in children includes physiological and neoplastic cysts. If radiology is suspicious for malignancy, cyst is usually removed via large midline incision to avoid risk of spillage, but is painful with cosmetically-unappealing incisions for young women. We present our experience of using a minimally-invasive approach first described by Ehrlich [1].
Methods: Retrospective review of girls with large ovarian cystic masses at our centre since 2007. Small pfannenstiel incision performed and peritoneal fluid sampled; cyst surface dried and dermabond™ glue used to stick Opsite™ dressing to cyst surface. Fluid then drained through the dressing to prevent any intra-abdominal leakage. Once aspirated, cyst and ovary delivered and ovarian-preserving cystectomy performed.
Results: Nineteen girls [median age 13 years (5–16 years)] were managed this way. Pre-operative imaging showed complex lesions in all patients (median diameter 16 cm and volume 2088 cm^3). All radiology reports described the possibility of a neoplasm. At surgery, 18/19 cysts were intact and removed without internal spillage. Histology: mature teratoma (11, including 1 bilateral), serous cystadenoma (3), mucinous cystadenoma (3, including 1 bilateral), mucinous cyst adenocarcinoma (1), retiform Sertoli-Leydig tumour, intermediate differentiation (1). The girl with a mucinous cyst adenocarcinoma had evidence of pre-operative rupture with ascites and malignant cells in the peritoneal fluid; she subsequently died. All other patients are well without evidence of recurrence. This is largest described series using Ehrlich technique and shows large cystic neoplastic lesions can be removed safely, with a minimally-invasive approach, while following oncological principles.

Reference

[1] Ehrlich; *J. Pediatr Surg* 2007.

GCT-62 Laparoscopic surgery in paediatric ovarian tumours

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Background: The laparoscopy procedure is not routine in paediatric ovarian tumour surgery. This study analysed the laparoscopy procedure in the surgical treatment of paediatric ovarian tumours.
Methods: A retrospective analysis of ovarian tumour patients admitted at a single institution between July 2014 and October 2018. Demographic and clinical features were reviewed.
Results: Twenty-nine patients, ranging from 11 to 222 months of age, were treated for 29 ovarian tumours: 19 (65.5%) malignant and 10 (34.5%) benign lesions. Median age at surgery was 12 years. The primary surgical approach was done in our hospital in 16 cases; three primary laparoscopy salpingo-oophorectomy were performed. One patient had a ruptured tumour in the initial laparotomy, laparoscopy was done post-chemotherapy (second-look surgery). For the patients who had initial surgery in other hospitals and staging information was incomplete, we performed a staging laparoscopy (four patients). We found one patient with positive peritoneal cells, one with remnant