Sacrococcygeal teratomas in children in sub-Saharan Africa

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INTRODUCTION

Background

- Sacrococcygeal teratoma (SCT) is the most common congenital tumour with an incidence of 1 in 35,000 to 40,000 live births[1]
- Female to male ratio of 4:1[1]
- Good prognosis with prompt and complete surgical excision[2]

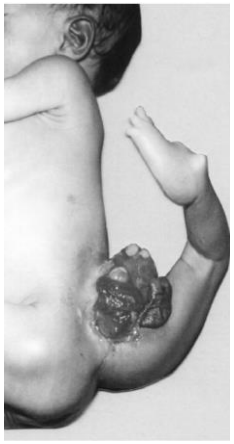

Fig. 1[3]: A 10-day old baby boy presenting with a mature sacrococcygeal teratoma (Legbo et al., 2008).

Aim

- To conduct a literature review of sacrococcygeal teratomas in children in sub-Saharan Africa

Methods

- Literature search using PubMed identified 7 relevant cohort or case studies (within the last 20 years)
- Thematic analysis was performed

THEMATIC ANALYSIS

Hidden mortality burden

- Very few hospital presentations compared to the estimated affected population
  - *E.g. only 15.2% of the estimated Ugandan population affected by SCT presented to Mulago National Referral Hospital, Kampala during 2012[4]*
- Likely high intrauterine and perinatal mortality e.g. from obstetric complications such as dystocia, tumour rupture or haemorrhage[2,5,6]
- Antenatal diagnosis (see Fig. 2) improves outcomes by allowing fetal intervention or planned Caesarean sections, but access to antenatal care is currently limited in sub-Saharan Africa[1,5,6]

Fig. 2[7]: Antenatal ultrasound showing a large sacrococcygeal teratoma (Tuladhar et al., 2000).

Late presentations

- Many patients present late, by which time tumour complications have often set in
  - *E.g. 80% of patients with SCT at Ilorin Teaching Hospital, Nigeria (from 1999-2012) presented with tumour complications[8]*
  - *E.g. 41.6% of patients with SCT at Jos Teaching Hospital, Nigeria (from 1990-2008) presented after the neonatal period[5]*
- Delays in presentation linked to poverty and lack of access to healthcare facilities[4,5,8]

Patient outcomes

- Management compromised by lack of specialist paediatric surgeons and anaesthetists and by lack of neonatal intensive care facilities[4,5,8,9]
- Short-term post-operative complications
  - *E.g. Post-operative wound infection or wound dehiscence in 9/21 patients treated for SCT at Maiduguri Hospital, Nigeria (from 1985-2003)[2]*
- Some limited long-term follow-up data
  - *E.g. 2 cases of recurrent disease requiring re-excision and 5 cases of functional impairment (e.g. urinary incontinence, patulous anus) in a subset of 21 patients with SCT at Jos Teaching Hospital, Nigeria (from 1990-2008) followed up for a median duration of 6 years[5]*

CONCLUSIONS

- Improved access to appropriate antenatal and obstetric care needed to address preventable mortality and morbidity due to SCTs
- More multi-centre and longer-term data needed

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