Successful Vaginal Delivery in Large Sacro-coccygeal Teratoma

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Abstract

Sacrococcygeal teratomas (SCT) is the most common congenital neoplasm of the foetus with an incidence of 1 per 20,000-40,000 births.[1] They are frequently large tumours size ranging from 1-30 cms with a average of 8 cms having both cystic and solid component.[1] Large (>10 cms) and vascular SCT require Caesarean Section.[2] We report a rare case of successful vaginal delivery of a very large SCT (17 X 10 X 10 cms).

Introduction

SCT is the most common congenital neoplasm of the foetus with an incidence of 1 per 20,000 - 40,000 births.[1] It shows a female to male preponderance in a ratio 4:1.[1-2] It is a germ cell tumour composed of multiple cell types derived from one or more of the three germ layers. Foetuses with SCT have associated increase in morbidity and mortality related to dystocia, traumatic delivery, prematurity, intra tumoural haemorrhage and associated congenital anomalies.[3] Successful management of SCT requires an multidisciplinary management between obstetrician, neonatologist and paediatric surgeon. Large SCT are best managed by caesarean section. We report a rare successful vaginal delivery of very large SCT.

Case Report

A 20 yr old unregistered primigravida non consanguineous marriage came to labour room with 9 months of amenorrhoea and pain in abdomen since 8 hours. She had no significant past medical history. Her general examination was normal. Per abdomen examination revealed uterine size of 36 weeks, left occipito anterior position, regular FHS 140/min and 2 contractions lasting for 15-20 sec in 10 min. Per vaginal examination - Cervix 2 cm dilated, 70 % effaced, vertex presentaion, membranes present, station - 1, pelvis adequate. Her investigaions sent were of normal values. Urgent ultrasonography revealed single live intrauterine fetus with 32-33 wks of gestation, AFI 8, placenta fundoanterior, EBW 2.2 kg, with a 14 X 7 cm large cystic lesion with solid component measuring 5.2 X 3.5 cm, with increased vascularity suggestive of large sacrococcygeal teratoma.

Arrangement for emergency caesarean section was made. But patient and relatives refused for caesarean delivery inspite of counselling regarding the risk associated with vaginal delivery and the associated perinatal morbidity and mortality.

Patient labour progressed well. ARM was done, liquor was clear, 5U oxytocin drip was started. Neonatologist were informed. Patient delivered with deep episiotomy female baby 2.215 kg, cried immediately after birth. Slight difficulty was encountered while delivering the SCT but due to predominantly cystic component it came out easily. SCT 17 X 10 X 12 with cystic and solid component (Fig. 1) and placenta wt of 650 gms. Baby was shifted to NICU and was operated on day 3 with complete excision and removal of coccyx, there was no intra pelvic extentions and anal sphincter was re-strengthened. Suture removal was done on day 10 and baby discharged on day 20. Histopathology revealed - Immature teratoma sacro coccygeal area. Baby is regularly followed up in Dept of Paediatrics since last 1 year with no recurrence or anal incontinence.

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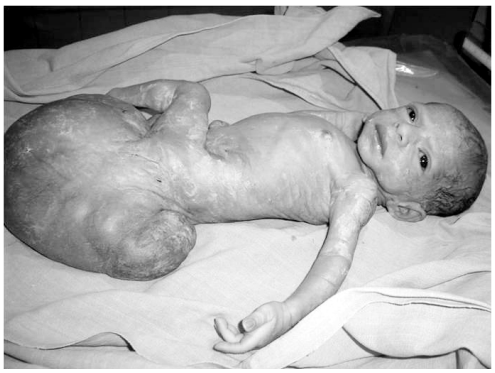

Fig. 1 Baby with large Sacrococcygeal Teratoma

Discussion

Due to advances in antenatal ultrasonography there is an increased incidence in the antenatal diagnosis of SCT.[4] SCT may be classified histologically as benign (mature) or immature(composed of embryonic elements). American Academy of Pediatrics Surgeons Section (AAPSS) classify SCT on the basis of extent of SCT.[5] Type I predominantly external with minimal presacral component. Type II present externally but with significant intrapelvic extension. Type III - apparent externally but predominantly pelvic mass extending into the abdomen. Type IV - presacral with no external presentation.

Altman[5] defined the size of SCT as follows : Small - 2 to 5 cms diameter, Moderate - 5 to 10 cm, Large > 10 cm diameter. Large SCT and Type I and II are best managed by caesarean section.[6-7]

Management during Delivery

Successful management requires a multidisciplinary approach between obstetrician, neonatologist and paediatric surgeon. Delivery should always be conducted in a tertiary care hospital. Gross *et al*[7] and other studies have recommended caesarean delivery in all foetuses with SCT more than 5 cm diameter. All reported cases of dystocia with SCT have tumour size of >10 cms.[8] Management of SCT also depends upon foetal gestational age, tumour vascularity, cystic solid component, hydrops, maternal complications and congenital anomalies.[8]

The reported case is a rare instance where a large SCT was delivered vaginally. If vaginal delivery is attempted in SCT proper patient consent with respect to foetal morbidity and mortality is must. Complications in the form of tumour rupture, intra tumoural haemorrhage, dystocia, DIC should be kept in mind. SCT having a predominantly cystic component may be successfully delivered vaginally.

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