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Case report

ANAESTHETIC MANAGEMENT OF CAESAREAN SECTION FOR CONJOINT-TWINS: A CASE REPORT

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ABSTRACT

At Pravara Rural Hospital a 29 year old patient was admitted for delivery. Patient had conjoint-twins diagnosed after sonography and was posted for elective caesarean section. Patient was managed under general anaesthesia after thorough preparation and under multi-disciplinary involvement. Both the twins females were living and were further managed by neonatologists. Though conjoint-twins are rare and patients coming for delivery with conjoint-twins are still rarer because of early diagnosis and termination, anaesthesiologists working in developing countries and working in remote areas may face such patients. There are very few publications for management of delivery in such patients, hence this case report.

Keywords: Conjoint-twins; Ceaserian section; General anaesthesia

INTRODUCTION

Conjoint-twins as human malformation have been documented as early as 1100 from England and later from African countries¹. Most popular have been the Siamese-twins in years 1811 to 1874¹. Today, with the advent and routine use of prenatal diagnostic techniques such as sonography, these cases are diagnosed early and subsequently termination of pregnancy is done routinely. History though, tells about the existence of conjoint-twins, there is limited knowledge about the mode and method of delivery, as well as care of the mother and fetus at the time of and after the delivery.

There are not much literature regarding delivery of conjoined twins, normally or by caesarean section, and hence managing such patients is a challenge. There is some literature available

regarding anaesthesia for separation of conjoined twins, but regarding anaesthesia for caesarean section literature is minimal.¹ Even today a day comes when Obstetrician and Anaesthesiologist may face such a patient. We have managed such patient at a Rural Hospital.

So we thought to report a case of conjoined twins, being managed for caesarean section at Rural Medical College, Loni, Ahmednagar, Maharashtra State

CASE REPORT

A female aged 29 years was admitted for delivery on 7th May 2013 at Pravara Rural Hospital, Loni with 9 months of amenorrhea (34 weeks), History of- one Full Term Normal Delivery, home delivery and then one 4 months spontaneous abortion. Patient had no

other medical problem. Patient was investigated for routine examinations of blood and urine. Hb - 11.2gm% and Blood group was "O" Positive USG showed appearance of conjoined twins joined mainly in area of Thorax and Abdomen, single heart and polyhydramnios.

Patient was planned for caesarean section on 16th May 2013.

During pre-operative check-up patient was thoroughly examined with special considerations on a) Respiratory physiology, which may be disturbed due to over distended abdomen.

b) Cardio-vascular system for congenital or acquired changes secondary to over distension and/ or overload.

c) Anxiousness and reactions after knowing about the condition of the fetus.

Routine as well as special investigations like Liver Function tests (LFTs), Renal function tests (RFTs), Sonography were studied. LFT and RFTs were within normal limits. Fetal condition was judged with Fetal Heart Sounds (FHS) & Fetoscopy.

Pravara Rural Hospital being a Medical College Hospital, all concerned specialties like additional team of Obstetricians, General surgeon, two teams of Neonatologists, and an additional team of anaesthesiologist were ready at the time of surgery. Adequate amount of blood was kept ready.

General Anaesthesia had been the choice of attending Anaesthesiologist. Premedication inj. Fentanyl 20µg was given and patient was shifted to OT.

After preoxygenation with 100% O₂ for 5 minutes, patient was induced with Thiopentone (Sodium thiopental) 250 mg and Scoline (Suxamethonium chloride) 100 mg. Intubated with cuffed ETT no.8 and ventilated with O₂:N₂O and Isoflurane with assisted ventilation. There had been difficulty while delivering baby and inverted T incision was taken which eased delivery of Conjoint-twins. Once the baby was delivered Pitocin 10 units added to drip. Additional inj. Ergometrine was given to facilitate contraction of uterus. Twins, Thoracophagus were handed to Neonatologist for further management as both were living and with APGAR score² at 1, 5 and 10 minutes respectively^{4,5&6}. Patient was maintained on Nitrous Oxide – Oxygen, Isoflurane and Vecuronium with controlled ventilation. All vital parameters remained in the normal range during the procedure. At the end of surgery patient was reversed

with inj. Neostigmine and Glycopyrolate. Recovery was uneventful. The total surgery took 45 minutes.

The twins delivered were well resuscitated by concerned pediatricians both females with APGAR score 4,5,6.

Post surgery patient was haemodynamically stable with pulse 82/ min and BP 132/82 mm of Hg.



DISCUSSION

The issue of Conjoined twins has always been looking at from various angles as like religious, cultural and legal angles. The worldwide incidence of conjoined twins ranges from 1 in 50,000 to 1 in 200,000, more in Africa & South West Asia. Large number of infants die, either in utero (28%) or immediately after birth (54%), only around 20% survive.³

With advent of newer diagnostic tools like Sonography, it is possible to diagnose conjoined twins as early as 9-12 wks of gestation⁴ and if diagnosed it is advised to get it terminated to avoid maternal and social trauma to patient. Confirmation can be done with echocardiography and fetal MRI.¹

Two types of conjoined twins are described-symmetrical & asymmetrical. Some researchers also classified it on the basis of site of union like Craniophagus, Thoracophagus etc.

In Rural areas where USG facility is not available or due to illiteracy and ignorance of importance of ANC check- up, patients come at later stages of pregnancy. If parturient attends hospital after 32 weeks of pregnancy termination is not possible and attending obstetrician has to decide about mode of delivery. Usually planned caesarean section delivery is preferred.³

Even with all precautions and expertise available, the rate of stillbirth is very high. Similarly, high maternal mortality during labour is also reported.⁴

Once planned caesarian section delivery is decided Anaesthesiologist comes in picture. He has to examine patient, see for all investigations done and decide for safe technique of anaesthesia for both mother and twins. It is to be considered only in the Institute where a team of medical professionals with expertise in related specialties is available.

Choice of Anaesthesia: For caesarean section patient can be managed by Nuraxial anaesthesia⁵ or with General Anaesthesia.⁶ But as described by Drake et al when giving nuraxial anaesthesia one should be always ready to support with General anaesthesia.

We preferred General Anaesthesia because of following reasons: anxiousness of patient, overdistended abdomen, likely hood of extension of uterine incision, chances of atonicity of uterus and easy to manage complications, if occurs.

Thorough preoperative visit for routine as well as specific problems like lung function changes due to over distended abdomen and haemodynamic changes were taken care of.

Induction had been routine with Thiopentone & suxamethonium with Endotracheal Tube (ETT) and assisted ventilation till delivery of twins .There was no extension of uterine incision. Tone of uterus was also maintained with Pitocin 10 units/500ml drip and methyl ergometrine.

Once delivered, the conjoined twins were handed over to pediatricians & both twins with Thoracophagus have been living and needed marginal resuscitation. Both were females with an APGAR score at 1, 5 and 10 minutes of 4,5,6 respectively.

Furuya et al has mentioned that survival of fetus after caesarean section is rare and most of the times twins were still born.⁶ But in our case both conjoined twins were living & with good prospectus of survival.

Mother also had an uneventful recovery.

CONCLUSION

Though rare, an anaesthetist may have to manage a case of delivery of conjoint twins any day. Such patients should be managed at an institute level where multidisciplinary specialists and facilities are available. Anaesthesiologist should also be prepared for associated complications which may due to over distended abdomen, increased chances of bleeding

during surgery and atonicity of uterus, and may sometimes need further emergency management.

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