



Pregnancy with Scoliosis and Uterine Anomaly, A challenge to Obstetric surgeon and Anesthesiologist: A Case Report

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Abstract

Course of change in one organ development may affect development of another organ system. Mullerian duct developmental anomalies are a challenge to obstetrician and gynecologist. A rare form of lack of development that occur from complete or near complete arrest of development of one of Mullerian duct is Unicornuate Uterus. These anomalies have association with skeletal deformities like scoliosis of spine and "klippel-Fiel" anomaly. These anomalies are often unnoticed and when these anomalies are associated with pregnancy, the challenge occur in anesthetic and surgical management of patients.

Keywords: Scoliosis, Unicornuate Uterus, Mullerian duct, Spinal Anesthesia.

Case Report

We report a case of 26-year-old female (G₂P₁) present to operating room for emergency cesarean section with indication of Breech presentation, previous LSCS with early conception. She was a booked case at our regional Hospital. She has previous LSCS 2 years back at some private hospital for breech presentation under Spinal anesthesia. She was never diagnosed with any deformity of spine. ASA standard monitors were attached and a function 18G IV line was started. Patient was prepared for spinal anesthesia. When patient was positioned, there was drooping of left shoulder with concavity toward left side of back (Image 1). Upon observing her from head end her spine found to have scoliosis. Patient was positioned and spinal anesthesia was attempted in

L4-L5 space, there was difficulty in putting spinal by conventional direction after three attempts. Another space L3-L4 was attempted with direction of needle directing towards right side and more cranially with 26 G Quinke tip spinal needle. 2 ml of 0.5% Heavy Bupivacaine was given after free flow of CSF. Patient was kept in supine position and observed for any deformity from front. There is obvious concavity towards left side with abnormally oblong of uterus toward right side (Image 2). Patient was positioned with 15° left Lateral tilt. Effect of spinal anesthesia was achieved and level was adequate. After delivery of baby when the uterus was examined, it was found to be more oblong towards right side and there is small cornua towards left side (Image 3). There was no septae inside uterine cavity. It seems to be

a non-communicating unicornuate uterus with rudimentary horn without any cavity. Patient was hemodynamically stable during the LSCS. After completion of surgery patient was kept in PACU for 1 hour for monitoring. A review history was taken from patient and her attendants which revealed that they have never noticed any deformity in back and posture.

Discussion

The deformities present in our patients were never noticed and they become evident during pregnancy in later stages. Mullerian duct which is involved in development of female genital organs may lead to a wide array of developmental anomalies. These may range from “complete agenesis of uterus and vagina known as Mayer-Rokitansky-Kuster-Hauser syndrome” to deformities involving uterus, vagina, cervix and fallopian tube alone or in combination. These anomalies may lead to wide spectrum of symptoms ranging from primary amenorrhea, infertility, recurrent abortion, breech presentation and preterm delivery. These deformities can complicate pregnancy which lead to challenges for obstetric surgeon. Such patients often have skeletal anomalies like congenital scoliosis which may involve any part of spine. Involvement of spine may lead to difficult approach to spinal anesthesia and cardiorespiratory consequences. General Anesthesia itself lead to profound hemodynamic alteration in scoliosis patients and physiological changes of pregnancy add to complicate the course. Fortunately, our patients don't have that much of involvement of Mullerian duct anomalies and scoliosis which made us capable of managing the case at secondary health care institution in emergency.



Image 1



Image 2



Image 3

Conclusion

Female Patients presenting with deformities of spine may have associated Mullerian duct anomalies. These patients must be screened for other organ system involvement. Cardio respiratory screening should be included as integral part of course of pregnancy. Pre-anesthetic examination must have been done in due course of pregnancy well in advance to adequately optimize the patient in case of need of emergency caesarian section.

Declaration of Patient Consent

The authors certify that they have obtained all appropriate consent forms, in which the patient has given her consent for her images and other clinical information to be reported in journal. The patient understands the name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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