

3 M syndrome and Pregnancy

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Case report

32-year G2P1 previous LSCS for severe growth restriction. She had previously been diagnosed with rare 3M syndrome she had typical facial features of 3M midface retrusion thick eyebrows, lips and surgery for correction of scoliosis.

Antenatal care period was MDT management with Anesthetic, neonatal review was requested, serial growth scans as per high risk SBL pathway risk. repeat Caesarean section was arranged in view of previous caesarean and SGA baby.

Caesarean was performed at 39 weeks was uneventful healthy male infant on the 10th centile. Postoperative period was complicated with hypertension which was treated with antihypertensive medication. she made good post operative recovery and was discharged D2.

- Three M syndrome is an extremely rare autosomal recessive inherited disorder characterized by low birth weight, delayed bone age, and short stature; with characteristic malformations of the head, dysmorphic facial features, skeletal anomalies and normal intelligence. Three M syndrome appears to affect males and females in equal numbers. Hypogonadism and hypospadias have been reported in male patients; however females have normal ovarian function.

Genetics

- Gene variation of *CUL7* (75%); *OBSL1* (20%); and *CCDC8* (5%) are involved in a pathway that affects cell proliferation and growth thus associated with more significant growth impairment. Diagnosis is based on the presence of clinical features and genetic testing confirm

- the diagnosis and identify the specific gene involved.

- Three M syndrome women are unusually small and have a low birth weight despite being carried to term. This is due to growth delays during fetal development. Growth delays and immature bone development typically continue postnatally, leading to short stature with proportional development of the arms and legs leading to short stature with short-limbed dwarfism. Genetic counselling will be of benefit for affected individuals and their families. Family members of affected individuals should also receive regular clinical evaluations to detect any symptoms and physical characteristics. Newborns should have a hip ultrasound scan to screen for developmental dysplasia of the hip.

- Spinal and Epidural anesthesia can be safely administered in patients with skeletal dysplasia, at lower doses than in patients of normal stature

Conclusion:

- 3 M Syndrome is a rare condition characterized by low birth weight, severe postnatal growth deficiency, and minor dysmorphic abnormalities.
- Genetic testing of affected parents is useful. Multi-disciplinary input with orthopedic, neonatal, anesthetic team is essential in antenatal care. Regional anesthesia is safe for caesarean section.

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