

Survival of the Fittest (Littlest) - Management of a High Risk Pregnancy?

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Abstract: Preterm labour (PTL) is one of the leading causes of perinatal morbidity and mortality. **Incidence:** The overall incidence of PTL is around 10 - 15% (6 - 15% Range) 3. **Risk factors:** Previous history of preterm labour is one of the important risk factor and risk of PTL in subsequent pregnancies is 14.3% and 28% after one and two preterm births. Others include multiple pregnancy, uterine over distension (polyhydramnios, macrosomia and fibroids), uterine anomalies, cervical incompetence, bacterial vaginosis, bleeding in early pregnancy, poor socioeconomic status, elderly and adolescent age group and tobacco use. **Predictors:** Cervical length assessment by USG, fetal fibronectin, vaginal pH are being used. **Prevention:** Progesterone and clindamycin (abnormal vaginal flora) antibiotic is being used with reasonable evidence. **Better Prognosis:** Corticosteroids and antibiotics help in reducing neonatal morbidity and mortality and tocolytics helps in allowing the steroids to act. **Conclusion:** Successful prediction, prevention and treatment of preterm labour has significant influence on the perinatal outcome, health care expenditure and quality of life. We have successfully managed a case of preterm in this case report and the preterms have successfully survived

Keywords: Preterm labor (PTL), preterm birth, predictors of PTL, tocolytics.

1. Introduction

In our country like India has different magnitude, as the cost involved in caring these preterm babies is enormous, which is not within the reach of the poor (1). Preterm is defined as babies born alive before 37 weeks of pregnancy is completed. There are sub - categories of preterm birth, based on gestational age:

- Extremely preterm (less than 28 weeks)
- Very preterm (28 to 32 weeks)
- Moderate to late preterm (32 to 37 weeks).
- Preterm delivery (<37 weeks completed gestation) is known to result from different etiologies which can be grouped into idiopathic preterm labor, preterm premature rupture of the membranes, short cervix, fertility treatment, infections, maternal stress and medical complications age <17 or >35 years. (2)
- Every year, an estimated 15 million babies are born preterm (before 37 completed weeks of gestation), and this number is rising.
- Preterm birth complications are the leading cause of death among children under 5 years of age, responsible for long term disabilities approximately 1 million deaths in 2015 (1).

2. Case Report

Mrs X, 37 years married since 8 years had a history of infertility. She had bilateral PCOS underwent ovulation induction and IUI, but treatment failed. Finally she was advised for IVF ICSI considering her age and previous treatment failures. IVF procedure went smoothly and two embryos were transferred. Her Bhcg was found positive, with good doubling value. At 6 weeks she had her dating scan and found to have intrauterine twin pregnancy with well established fetal heart rate. She was taking medications for hypothyroidism since the start of fertility treatment.

First trimester went uneventful with Nuchal Translucency scan and dual marker being normal. She was advised on INJ

LMWH (low molecular weight heparin), Tablet Aspirin to prevent low birth weight and reduce the risk of gestational hypertension. Progesterone support was given both vaginally and as injectables.

At 12th week, cervical length was 2.8 mm. Cervical encircage was done in view of twins and high risk precious pregnancy. All her routine pregnancy bloods & urine tests were found to be normal.

At 19th week anomaly scan was done. Both twins were absolutely normal.

At 22nd patient developed mild pain in pubic symphysis region, for which she was admitted and found to have cervical length <2mm with cervical suture insitu. No vaginal discharge/leaking per vagium. she was advised foot end elevation, progesterone support were given. Pain was on &off settling on its own. Urine infection was ruled out.

At 24th week she had severe back pain radiating to abdomen. No active contractions. Started on tocolytics, pain subsided. Inj dexamethasone 8mg intramuscular 4 doses were given for lung maturity (4). Review ultrasound showed open Cervical os with suture in situ. Strict bed rest was advised in hospital. DIPSI was done to rule out sugars, found to be normal.

From then on pain was intermittent in the lower abdomen &back, managed to reach 26th week, Injection MgSo4 was given for neuroprotection anticipating delivery anytime soon. At 27 weeks pain was severe & continuous not responding to any tocolytics and analgesics with mild leaking on &off. Ultrasound showed reduced liquor in both sacs.

Hence emergency Lower Segment Caesarean Section was planned and delivered alive twin babies, both cried immediately after birth. Twin A 890 grams, Twin B 930 gms. Both twins were intubated and under NICU care. With

good NICU team, both twins survived after being for 42 days in NICU and got discharged. All these times the parents were given good emotional and psychological support which helped the mother for good milk secretion and prevent her postpartum depression

[6] National Institute of Health and Care Excellence (NICE) Preterm Labour and Birth (NICE Guideline 25) 2015. updated 2019

3. Discussion

Extreme preterm delivery we wont anticipate in our routine practise. Accurate diagnosis of the cause and elimination of infections will prevent and prolong preterm deliveries. This case had many high risks like elderly primi, twin pregnancy, short cervix at 20th week. In this case, our cervical encerclage helped us to hold the baby in utero from 19 to 27 weeks. Vaginal progesterone should be considered the preventative treatment of choice for women with singleton pregnancy identified to be at risk of spontaneous preterm birth because of a history of spontaneous preterm birth or short cervical length. (5) We eliminated vaginal & urine infections. Administration of steroids for lung maturity and mgso4 for Neuroprotection helped the preterm babies to for a speedy recovery from NICU. Proper diagnosis, timing of decision of delivery, tertiary care support with well equipped NICU team is very important in managing preterm birth.

4. Acknowledgement

We acknowledge NICU team of doctors, staff nurses at RIO hospital, Madurai Tamilnadu for their exceptional preterm care given to the twins

5. Conflict of interest

There is no conflict of interest.

Conclusion

The National Institute for Health and Care Excellence (NICE) preterm birth guidelines currently recommend offering a choice between vaginal progesterone and cervical cerclage for women with short cervix and a history of spontaneous preterm birth (6)

References

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