Successful Pregnancy in a patient requiring home Total Parenteral Nutrition (TPN)

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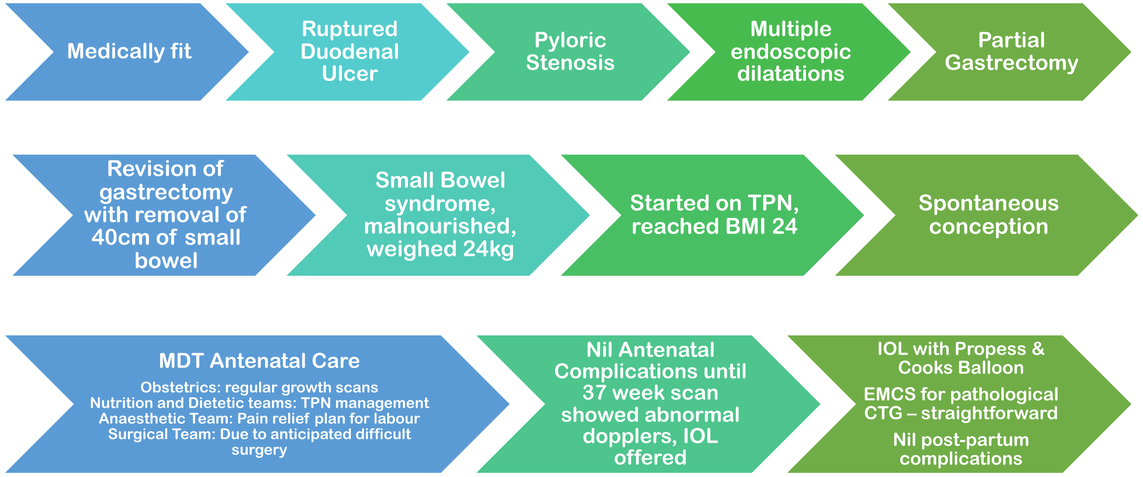
OBJECTIVES

- In patients with chronic intestinal failure, home parenteral nutrition (HPN) increases survival and the quality of life.
- Only a few cases of pregnancy have been documented in women requiring Home Total Parenteral Nutrition HPN.
- We report a case of short gut due to resection of the small intestine resulting in dumping syndrome, that was managed by prolonged home TPN, with the delivery of a healthy term baby.

CASE STUDY

- A 32-year-old female had a ruptured duodenal ulcer with subsequent pyloric stenosis 9 years ago.
- She underwent multiple endoscopic dilatations which failed and required a partial gastrectomy followed by revision and removal of 40 cms of small intestine 4 years later.
- Subsequently she could only tolerate fluids and a limited number of solids which caused her to lose a significant amount of weight (48 to 24 Kg) due to intestinal failure and dumping syndrome.
- She was commenced on home TPN (HPN) every 12 hours daily, 1.75L overnight via a Hickman line, 7 days a week.
- With this regime she was able to gain weight to a BMI of 24.
- She wished to conceive and was referred for assisted fertility but conceived spontaneously while waiting for her appointment.

- Pregnancy was managed by multidisciplinary input which included surgical, obstetric, nutrition and dietetic teams.
- The antenatal period was uneventful until 37 weeks when ultrasound showed abnormal umbilical artery Dopplers, and an induction of labour was discussed.
- Intensive monitoring of the mother and baby was done with the nutrition team visiting the labour ward suite to ensure facilities for TPN therapy.
- The anaesthetic team had special pain relief plans in place as enteral medical options were limited.
- Surgical input was sought in view of anticipated difficult surgery due to multiple adhesions.
- Induction was done using Propess which failed to change the bishops score and subsequent introduction of a Cooks Balloon.
- After removal of the Cooks balloon, amniotomy revealed thick meconium-stained liquor with a CTG showing decelerations.
- An emergency caesarean section was performed (which was uneventful) and a healthy baby was delivered.



DISCUSSION

- Intestinal failure in pregnancy is rare and short bowel syndrome is one of the common reasons for intestinal failure.
- The complications encountered by the index patient during pregnancy were nutritional deficiencies, low BMI, malabsorption of medications, abnormal liver, renal and glycemic indices, pain syndromes and anticipation adhesions.
- Fetal issues included small for gestational age and abnormal dopplers.
- Due to use of opioids for pain the newborn showed withdrawal features.

CONCLUSION

- This case highlights the fact that spontaneous pregnancy with good maternal and fetal outcome is a possibility with optimum Home Total Parenteral Nutrition.