

An Uncommon Case Of Multiple Nuchal Cord Loops As A Cause Of Foetal Distress And Emergency Caesarean Delivery: A Case Report

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BACKGROUND: A nuchal cord (NC) is a complication that occurs when the umbilical cord wraps around the foetal neck one or more times.

AIM: To highlight the presentation, diagnosis, management, and prognosis of case with multiple loops of nuchal cord.

CASE: We report a very uncommon case of quadruple nuchal cord in a 29-year-old primigravida, who was admitted at 40-week gestation, with absent foetal movements & spontaneous rupture of membranes for four hours with pink liquor including a normal sonographic examination and an abnormal cardiotocography (CTG) profile at the time of the presentation. She was a booked patient and had an unremarkable antenatal history with no medical or surgical history. She had her earlier antenatal visit just one week ago, which showed normal findings during that visit. The situation did not improve on changing the patient's position and administration of intravenous fluids. Due to consistent abnormal CTG which showed foetal tachycardia and prolonged decelerations, it was decided to perform an emergency caesarean section under spinal anaesthesia.



Figure 1: CTG on presentation

REFERENCES: 1. https://pmc.ncbi.nlm.nih.gov/articles/PMC8520427/

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3. https://www.ajog.org/article/S0002-9378(17)31312-1/pdf#:~:text=While%20the%20presence%20of%20nuchal,prevalence%20of%20operative%20vaginal%20delivery

4. https://www.jsafog.com/doi/pdf/10.5005/jp-journals-10006-190620(≥4%20loops)%20is,persistent%20variable%20decelerations%20on%20cardiotocography.

RESULTS: A live female neonate was born at 40 weeks, weighing 3140 grams. The baby cried immediately after birth with a good tone and activities with a normal Apgar score of 9 and 9 at 1 and 5 minutes, respectively. On examination, the placenta was normal with no retroplacental clot. There was meconium staining liquor and postpartum haemorrhage with 1200 ml of blood loss. A quadruple nuchal cord was confirmed at birth, also one loop of cord around the body was found. She was discharged with baby after 48 hours of delivery in good condition.

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DISCUSSION: Nuchal cords are a potential cause for perinatal distress and a rarely significant risk factor for long-term neurodevelopmental consequences in the developing fetus. Nuchal cord with four or more loops can be associated with higher incidence of intrauterine foetal death, intrauterine growth restriction, increased operative vaginal deliveries and lower Apgar scores. Despite the good prognosis in most of the cases, nuchal cord is associated with variable foetal heart rate deceleration, decreased foetal movements, foetal distress, and intrauterine foetal demise in a few cases. Multiple nuchal cord, especially four or more loops, demands special care due to the risk of intermittent cord compression. If signs of fetal distress are present, an operative delivery may be required. Given the common occurrence of nuchal cords and its very high association with a favorable outcome, routine doppler ultrasound near term to rule out nuchal cord in low risk women is not suggested. Further studies are required to identify the antenatal factors associated with NC that increase the likelihood of significant adverse outcome.