

A singleton pregnancy with five loops of nuchal cord and multiple fibroids

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Objective

This case report describes the management of a singleton pregnancy complicated by the presence of high order nuchal cords and multiple large uterine fibroids.

Case summary

A 31-year-old nulliparous with multiple fibroids, including one measuring 20cm, was monitored throughout her pregnancy.

At 35 weeks, a scan was done by fetal medicine specialist for fibroid mapping.

Fibroids were clear of the cervical os. However, there were five loops of cord around fetal neck (Figure 1 and 2). Estimated fetal weight was on the ninth centile.

A repeat scan two weeks later showed persistent findings.

After multidisciplinary team meeting and careful counselling, she underwent an elective caesarean section and myomectomy (see Figure 3-6)



Figure 1 Two-dimensional cross-sectional ultrasound images at 34 + 6 weeks' gestation, showing five loops of umbilical cord around fetal neck.



Figure 2 Two-dimensional colour Doppler ultrasound images at 34 + 6 weeks' gestation, showing five loops of umbilical cord around fetal neck.



Figure 3 Five loops of tight cord around fetal neck was noted at delivery. Birthweight of the baby was on 1.56th centile.

Discussions

Higher-order nuchal cord

- Three or more loops around the neck, considered complex umbilical cord entanglement (1).

Is operative delivery indicated?

- Nuchal cord alone is not an indication (2), but multiple tight loops may cause fetal distress (3).
- Higher-order nuchal cords are associated with increased intrapartum complications such as meconium staining, lower Apgar scores, and a higher likelihood of requiring Caesarean delivery (4-9).



Figure 4 The largest fibroid (maternal left) was as large as the gravid uterus (maternal right). A midline skin incision was made to allow adequate access.

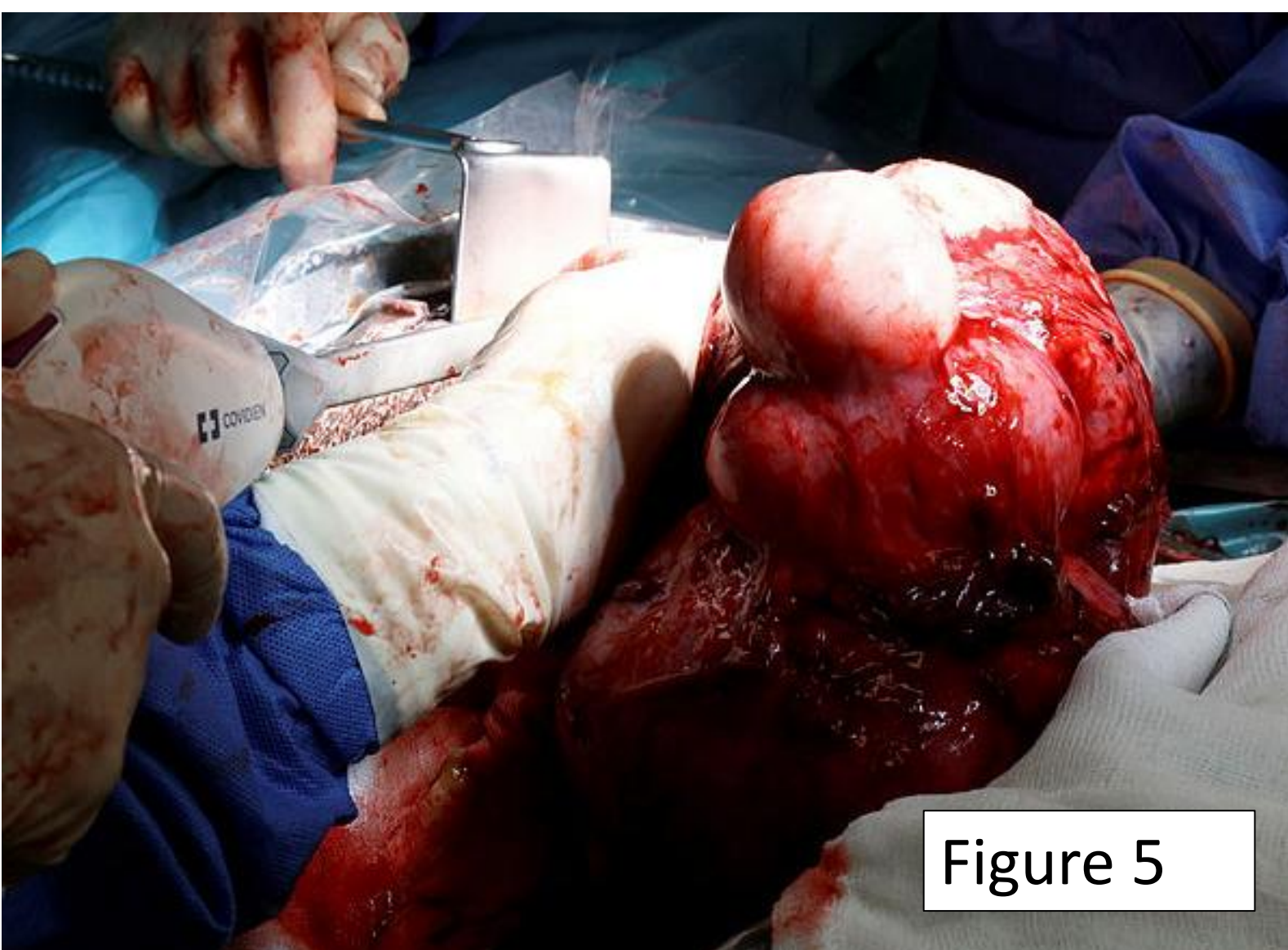


Figure 5

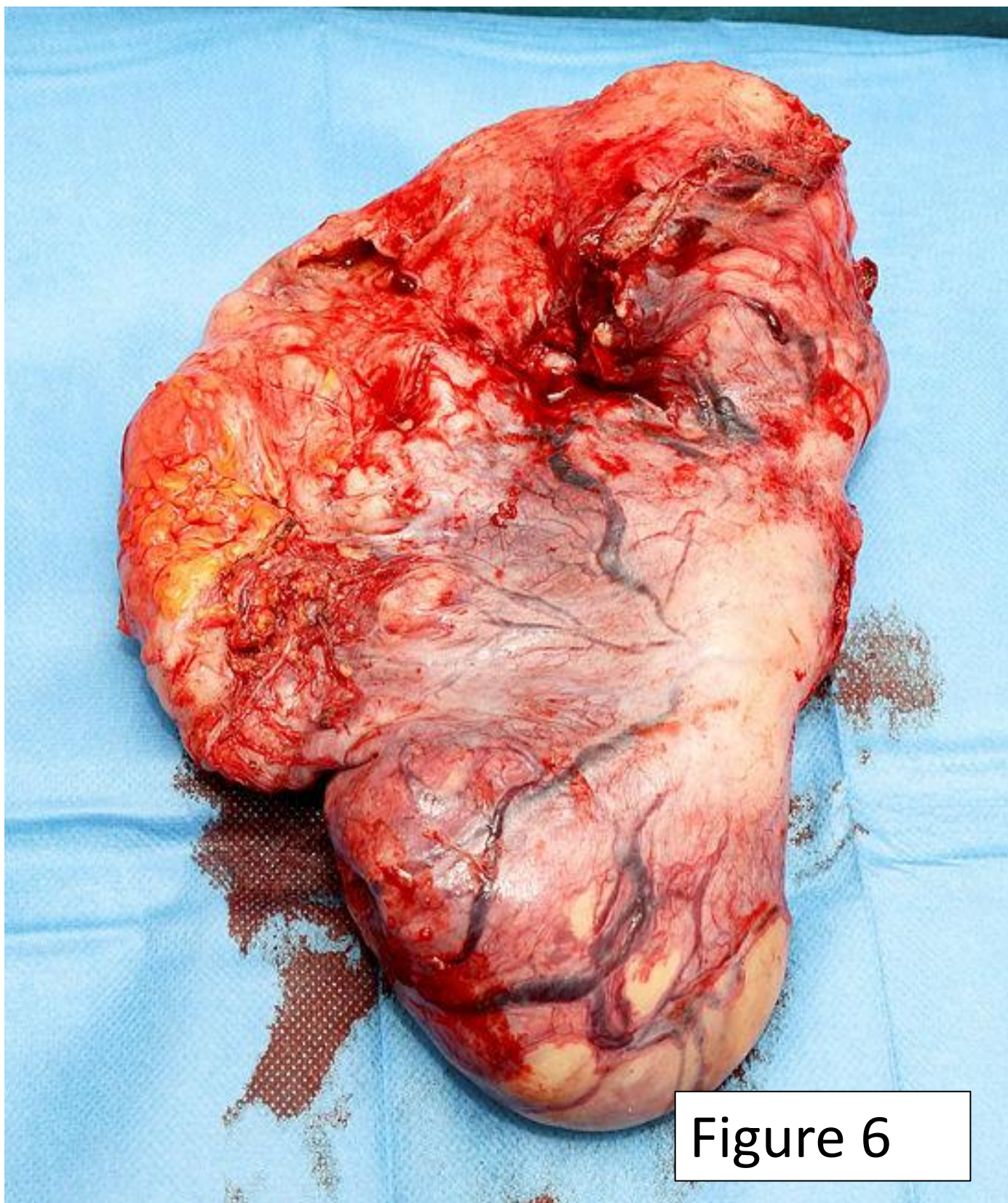


Figure 6

Figure 5 and 6: After uterine closure, myomectomy was performed. The largest fibroid was a subserosal fibroid extending up to liver and adhering to the anterior abdominal wall. The fibroid was cystic in nature and ruptured while being separated from the anterior abdominal wall.

All figures are obtained with consent from patient.

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Individualized approach

- Inconclusive literature** regarding the association between nuchal cords and adverse perinatal outcomes, especially if more than three loops.
- In view of **presence of both nuchal cords and large fibroids**, a **multidisciplinary team meeting** was held to discuss the safest mode of delivery.
- The **decision** to proceed with **elective caesarean** delivery in this case was influenced by **several factors**
 - Small-for-gestational-age fetus - **high likelihood of acute fetal distress during labour** requiring emergency intervention.
 - To avoid the **potential delay in emergency delivery** of baby due to **surgical difficulty posed by the large fibroids**

Conclusions

This case highlights the importance of a tailored approach when managing pregnancies with nuchal cords and fibroids. Prenatal diagnosis via ultrasound and expert management can prevent adverse outcomes. Furthermore, with appropriate planning and surgical expertise, caesarean myomectomy can be performed safely, ensuring optimal maternal and fetal health outcomes.

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