

# Long Cord: A Knotty Affair

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A cord length over 70 cm is considered long and true knots are a common association with mono-amniotic twins occurring in 0.3% to 1.0% of all pregnancies and have a fetal loss rate of 6%. A 24-year-old, G2P1L1, term, low risk, and booked woman came in labour with leaking per-vaginam and loss of fetal movements for three days. She had an uneventful antenatal period. General physical and systemic examinations were normal. On per abdomen examination, the uterus was term size with a single fetus in cephalic presentation with moderate contractions. Fetal heart sounds were absent. On per vaginal examination, cervix was fully dilated and vertex was at +2 Station. She delivered a 2.5 kg macerated male baby. The cord had two tight true knots and the total length of the cord was 140 cm [Table/Fig-1]. Multiple areas of calcifications were present in the placenta.

Long umbilical cord and true knots are rare, but when present are associated with adverse fetal and neonatal outcome. Long cord is associated with increased risk of cord prolapse, entanglement, true knots, and brain imaging abnormalities, fetal anomalies, fetal death and abnormal neurological follow up [1]. True knots have a 6% fetal loss rate. Muppala H et al., described a case with a cord length of 142 cm, 2 double loop true knots, multiple torsions and a loop around baby's neck but the fetal outcome was good [2]. Mian DB et al., described a long cord and sudden antenatal death due to strangulation with multiple loops of nuchal umbilical cord [3].

Routine Doppler at term for complete cord assessment may provide us with an antenatal diagnosis and a window for timely intervention thus preventing unfortunate outcomes though this may not be cost effective.

## REFERENCES

[1] Joura EA, Zeisler H, Sator MO. Epidemiology and clinical value of true cord knots. *Wien Klin Wochenschr.* 1998;110:232-35.



**[Table/Fig-1]:** Calcified placenta with two true knots with a umbilical cord length of 140 cm.

[2] Muppala H, Bedoya-Ronga A, Martindale E. Abnormally long umbilical cord with marked spiraling and true knots: a case report. *The Internet Journal of Gynecology and Obstetrics.* 2007;7(1):7.

[3] Mian DB, Konan J, Kouakou KC, Angoi V, Gbary E, Itoua C. Severe antenatal strangulation and sudden fetal death occurs in term: case report. *Clin Exp Obstet Gynecol.* 2016;43(1):161-64.

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