Umbilical cord torsion: a rare cause of intrauterine fetal death

Göbek kordonu torsiyonu: intrauterin fetal ölümün nadir görülen bir nedeni

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Abstract

Umbilical cord torsion is an extremely rare cause of intrauterine fetal death. Prenatal Ultrasonography can recognize torsion of the umbilical cord. We may avoid such a disaster by early diagnosis. (J Turkish-German Gynecol Assoc 2009; 10: 128)

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Umbilical cord serves a vital function, but unfortunately it is susceptible to different types of congenital and acquired abnormalities leading to jeopardy of fetal health.

Cord accidents may be responsible for as high as 5% of fetal demises (1). Umbilical cord torsion is an extremely rare cause of intrauterine fetal death (2). We present a case of intrauterine fetal death at 29 weeks, due to torsion of the cord.

A 24 year gravida 2, para 1 with previous CS 4 years previously, at 29 weeks of gestation was admitted with loss of fetal movement for 7 days and abdominal pain. She had a history of less fetal movement for the first time 10 days earlier and subsequent ultrasonography revealed a single live fetus of 27 weeks and fundal maturity grade II placenta with adequate liquor. She lost her fetal movements again 7 days earlier and ultrasonography confirmed intrauterine fetal death.

She waited for 7 days as advised by her house physician for spontaneous expulsion of the fetus. When she had severe pain, she was admitted to our hospital.

Examination findings revealed tachycardia (PR-100/min) with scar tenderness. Her cervix was firm with closed os. Caesarean section was performed.

After opening the abdomen, we found that the lower segment was thinned out having only intact peritoneal coat, indicating partial rupture. The placenta was mildly adhered to the uterus and severe torsion of the umbilical cord (Figure 1&2) was observed. We removed the placenta manually and closed the uterus in layers.

Umbilical cord torsion has been reported to be an uncommon cause of intrauterine fetal demise. Although initially described more than 300 years ago, relatively few cases have been de-
scribed in the literature in the last 50 years (2). It may result from fetal movement during which the cord normally become twisted. But recent reports have shown familial clustering. Such intrafamilial clustering suggests that a genetic predisposition for umbilical cord torsion may exist (3). Umbilical cord torsion has usually been regarded as secondary to fetal death or cord constriction or due to lack or abnormality of Wharton’s jelly (4). Umbilical cord torsion, in the absence of predisposing constriction or abnormality of Wharton’s jelly, can obstruct the umbilical blood vessels and cause intrauterine death (5). In our case torsion without abnormality of Wharton’s jelly was observed. Prenatal ultrasonography can recognize torsion of the umbilical cord. If the vein-to-vein pitch is < 2 cm, torsion may be associated. 6. Cardiac failure can occur with umbilical cord torsion and can present as nonimmune hydrops. So the present report may serve to facilitate understanding of such undesirable cord accidents by detailed prenatal scanning of cord structure to avoid such a disaster.

References