

Fetus papyraceous - A rare complication of monochorionic diamniotic twin pregnancy.

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Abstract

Fetus papyraceous is the dead fetus with remains retained in the uterus for a minimum of 10 weeks after intrauterine fetal death, which results in mechanical compression of small fetus that resembles parchment paper.

It is associated with obstetric complications. We present a case of fetus papyraceous in monochorionic diamniotic twin pregnancy.

Keywords: fetus papyraceous, twin pregnancy, intrauterine death.

Introduction

Fetus papyraceous is a dead and mummified fetus, which is compressed and remains for a minimum of 10 weeks after death.

It is parchment like due to mechanical compression and loss of fluid. It is more common in twin pregnancies, especially monochorionic twin pregnancy (1).

The incidence of fetus papyraceous is 1 in 12,000 pregnancies and between 1:184 twin pregnancies (2). It results from failure to completely reabsorb the dead fetus.

We present a case of fetus papyraceous in monochorionic twin pregnancy with a single live normal fetus along with fetus papyraceous.

Case presentation

A 22-year unbooked primigravida with 9 months of amenorrhea came with labor. The first baby was born vertex and cried immediately.

A small fetus that was flattened and 6 centimeters in length with identifiable features was attached to the placenta with very thin thread like cord (figure 1). The healthy fetus weighed 2.5 kg, having healthy cord attached to placenta.

The two placental portions were separated by a thin membrane. Histological examination of placenta revealed monochorionic diamniotic placenta.

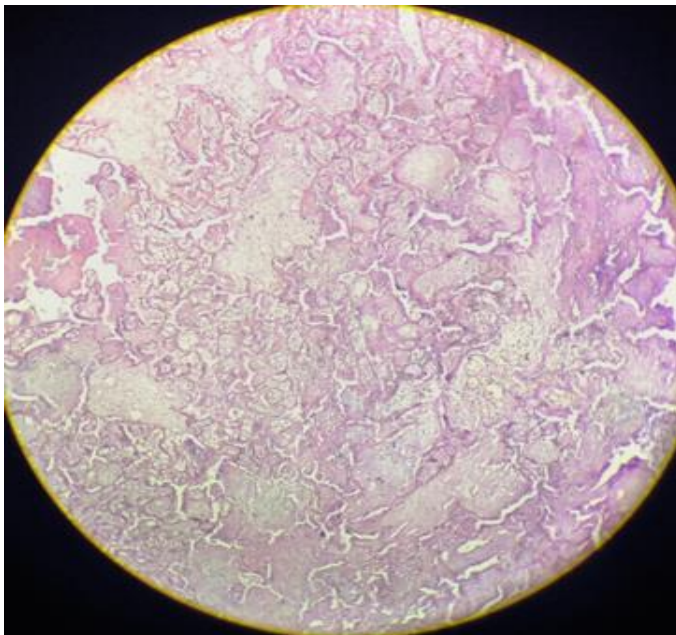
The placental portion attached to the fetus papyraceous showed dead villi with perivillous fibrin and dystrophic calcification (figure 2).

The placenta of healthy baby was unremarkable. One-month follow up of healthy baby was uneventful.

Fig 1: A small flattened fetus with thread like cord.



Fig. 2: microscopy of placenta from dead fetus – dead villi with dystrophic calcification (100 X H&E).



Discussion

Fetus papyraceus is seen as a complication of monochorionic diamniotic twin pregnancy resulting in Twin-to-Twin Transfusion Syndrome. It results from failure to completely reabsorb the dead fetus. Other etiological factors are fetal chromosomal abnormalities and improper insertion of cord like velamentous insertion of cord. It can be diagnosed early by ultrasonography during ante-natal care visits. Few unrecognized/ unbooked patients who have never had ultrasonogram

(USG) during pregnancy may be diagnosed with this condition intrapartum, as in our case. (3,4). The condition can lead to maternal complications like unexplained postpartum hemorrhage, preterm labor, sepsis due to retained dead fetus, consumptive coagulopathy and labor dystocia (5). Live fetus can also be affected; the frequent complications are prematurity, intrauterine growth retardation or fetal death (6).

In case of monochorionic twin pregnancy, one fetal death may lead to perinatal mortality and neurological impairment in surviving fetus. Loss of one twin in the first trimester does not impair the development of surviving twin, the patient presents with vaginal bleeding and mild abdominal pain. Fetal death after mid gestation increases the risk of intrauterine growth retardation and cerebral palsy in live fetus as well as preterm labor, preeclampsia, Disseminated Intravascular Coagulation (DIC) in mother (7, 8).

Fetus papyraceus is diagnosed antenatally with serial evaluation of surviving fetus with USG, biophysical profile and maternal survival evaluation of coagulation profile like Fibrin degradation products (FDPs) and D dimer are helpful in management of such cases. Fetoscopic laser surgery can be tried as definitive treatment when this condition is diagnosed in early pregnancy (9). In our case, the patient was an unregistered ANC and the surviving fetus was normal, this may be due to the loss of one of the twins in the first trimester.

Conclusion

Fetus papyraceus is a rare complication of monochorionic twin pregnancy and can lead to morbidity and mortality in the surviving fetus and mother. Careful monitoring of the surviving fetus and mother for possible complications results in better outcome of pregnancy. Diagnosis of fetal papyraceus is important for prediction

of future obstetric complication and morbidity and mortality of the surviving twin.

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