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CASE REPORT

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Two papyraceous fetuses in a triplet pregnancy

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Introduction

In a multiple pregnancy a dead fetus becoming papyraceous and the surviving fetus growing normally in not a common event.

Case report

A 25 years old, 4th gravida was admitted to the labor room on 16th July 2004 at 2:10 p.m with 9 months amenorrhea, and labor pain with leaking for 5 hours. She had three normal deliveries, the last one 4 years back. She had three antenatal visits, the first at 36 weeks gestation and the last 2 days before admission. Sonography done at 38 weeks, showed a single, live, intrauterine pregnancy. Within 5 minutes of admission she delivered a 2600g baby with good apgar. After delivery she expelled an amniotic sac of 8 cm. Opening the sac, revealed two compressed flattened fetuses with shriveled cords. Sex of abortus could not be determined. Retrospectively it was a diamniotic dichorionic multiple gestation with one of the sacs having, two papyraceous fetuses with shriveled cords and a common 80g placenta. Each of the two papyraceous fetuses had a crown-heel length of 14 cm, head circumference of 7 cm, and weight of 40 g. The mother had a normal puerperium.

Discussion

In this case, binovular twinning and also early demise of cofetuses helped the surviving fetus to grow normally and no gross morbidity occurred at birth.

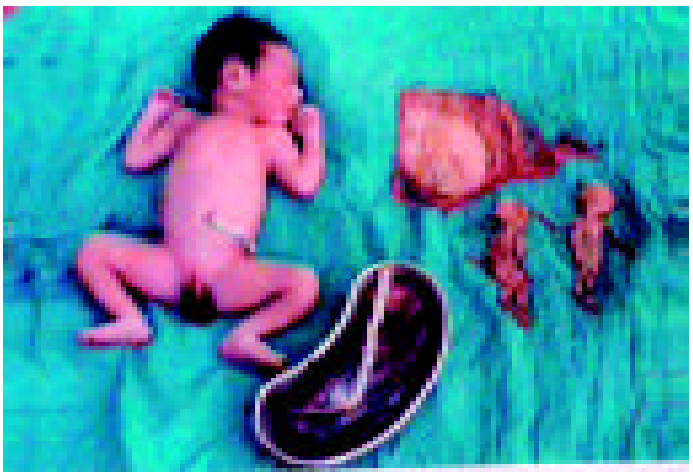

Figure 1. Normal baby with two papyraceous fetuses.

A fetal death in a multiple pregnancy with one or more normally surviving fetus is unusual. This intrauterine accident occurs in 1 in 184 twin pregnancies (0.54 %) [1] and in about 1 in 8000 triplet pregnancies [2]. Incidence of fetus papyraceous in twins is 1 in 12,500 [3] and in triplets around 1 in 32,800 [4]. Two papyraceous fetuses in a triplet pregnancy is exceedingly rare.

In a multiple pregnancy fetus papyraceous or compressus results when a fetus dies in utero early (usually in early 2nd trimester between 15 to 20 weeks) and is not expelled out, resulting in its atrophy and mummification. It is a macerated, tiny, fully, formed fetus which is usually dry and papery because the amniotic fluid and fluid content of the dead fetal tissues and of the placental tissue gets absorbed and the dead

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fetus gets flattened and compressed between the membranes of the living co-twin and the uterine wall. Most of the fluid will get absorbed from the fetus if it is retained for more than 8 weeks in the uterus.

Fetus papyraceous can occur in both uniovular and binovular twins but is more common in uniovular twins. Surviving fetus can have problems due to twin embolization syndrome (TES).

A tiny flattened fetus may be discovered within the membranes and/or in the placenta after delivery. Searching for a fetus papyraceous should be a routine part of placental examination.

If fetus papyraceous is diagnosed antenatally serial evaluation of the surviving fetus by sonography, biophysical profile, doppler and maternal coagulation factors should be done serially. Zygosity and chorionicity evaluation should be performed antenatally. Death of a binovular twin helps the surviving twin. If possible delivery should be scheduled at a tertiary center. The surviving twin often has the sequelae of twin embolization syndrome which is a complication following in-utero demise of the co-twin. It results from the embolization of placental and fetal thromboplastin or necrosed fragments of the dead placenta causing dissemedated intravascular coagulation or even end arteritis [5,6]. The emboli predominantly damage highly vascularised organs such as brain and kidney but can affect almost all organ systems. In the central nervous system these emboli can result in ventriculomegaly, porencephaly, cysticencephalomalacia, microcephaly, and cerebral palsy. Prevalence of cerebral pasly in surviving twins was over 50 times higher then normal [7]. Extracranial abnormalities include small bowel atresia, gastroschisis, hydrothorax, renal cortical necrosis and aplasia cutis. Aplasia cutis congenita is a rare disorder characterized by localized absence of skin at birth. It is also seen in cases of placental infarcts and is placed in Type V in Frieden's classificaiton [8].

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