

Fetus papyraceus: A case report

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Abstract: Fetus papyraceus is a rare condition of multiple gestations in which one fetus dies and is flattened between the membranes of the other fetus and uterine wall. We report a case of fetus papyraceus which was detected incidentally during caesarean section. A 28 year old, gravida 2, full term patient underwent the planned caesarean section. Her all antenatal ultrasonography reports showed single live intrauterine fetus and caesarean section revealed twin gestation one being a male baby and second fetus papyraceus, which was attached to the healthy placenta by a rudimentary cord. Both the healthy mother and the healthy baby were discharged home. Fetus papyraceus is a condition which is associated with the complications for the mother and the surviving fetus thus the diagnosis of fetus papyraceus by serial/intravaginal ultrasounds and routine placental examination of placenta and rudimentary cord is mandatory.

Keywords: Fetus papyraceus, Serial ultrasounds, Rudimentary cord.

INTRODUCTION:

Fetus papyraceus (FP) is a rare condition of dead twin fetus, which is compressed between the uterine wall and living fetus, and subsequently it is retained in utero. The reported frequency of FP is 1 in 12000 live births and the incidence ranges between 1:184 and 1: 200 twin pregnancies [1, 2]. The antenatal diagnosis of FP is incidental by ultrasonography [3]. Monochorionic twin pregnancies are associated with several complications compared to dichorionic pregnancies [2,3]. We present a case of monochorionic twin pregnancy consisting one normal fetus along with a fetus papyraceous, which antenatal Ultrasound could not detect and it was diagnosed during caesarean section.

CASE REPORT:

A 28 year old, gravida 2, patient at 38 weeks of gestation was admitted to ward for planned caesarean section. Her first caesarean section was done at another hospital for breech presentation. Her first trimester was uneventful with normal antenatal course. Her all antenatal ultrasonography reports showed single live intrauterine fetus with placenta placed anteriorly and adequate amniotic fluid.

Abdominal examination revealed a term size uterus with cephalic presentation and fetal heart rate of 137/minute. Her caesarean section revealed a twin gestation, one being a male baby with cephalic presentation, weighing 3.75 Kg and second fetus papyraceus lying in lower segment of uterus [fig 1 & 2]. The placenta was delivered carefully and examination of placenta revealed one healthy placenta and umbilical

cord of a healthy baby and another rudimentary cord attached to placenta with a mummified fetus [fig 3] which was identified and confirmed as fetus papyraceus after taking an x-ray image [fig 4], The pregnancy was monoamniotic and monochorionic twin pregnancy.

Patient tolerated the surgery well and her postoperative recovery was uneventful. On third day the patient was discharged. She was healthy in her post natal visits. The normal baby was kept in follow up for one year for the assessment of any developmental delay and he was found normal in follow up.

DISCUSSION:

FP is a rare condition with the incidence of one in 12000 pregnancies [1] and ranges between 1:184 and 1:200 twin pregnancies [2]. The cause of FP is unknown but it is associated with twin to twin transfusion, fetal genetic or chromosomal abnormalities and improper cord implantation such as vilamentous cord insertion [2, 4].

The complications associated with FP depend whether the twin pregnancy is monochorionic or dichorionic. Monochorionic twin pregnancies exhibit increased rate of complications compared to dichorionic pregnancies [2,3] and the specific higher risk complications are preterm birth, twin to twin transfusion syndrome (TTS), fetus in fetu [5], Intrauterine growth restriction (IUGR), death of a twin and twin reversed arterial perfusion (TRAP) [6,7]. In the surviving co-twin congenital anomalies like cerebral palsy, Intestinal atresia, gastrochisis, absent ear, aplasia cutis, anomalies of heart, microcephaly or

hydrocephalus have been reported [8-12]. Though it was a case of monochorionic twin pregnancy

fortunately the survived twin was normal without any congenital twin anomaly.



Fig: 1

Fig: 2

Fig: 3



Fig: 4 (Radiological image of Fetus papyraceus)

However, in many cases of FP there are no complications to the mother or to the surviving twin [3] as described in the case presented here, but during delivery FP may lead to rare obstetrical complications like obstructed labour or delay/obstruction of placental delivery [13]. The diagnosis of FP is important is to predict obstetric complications and fetal anomalies and it can be made by imaging studies like USG [3, 13, 14]. The series of USG can be done preferably every 2-3 weeks and monitoring of coagulation profile every fortnight. In this case though the ante natal ultrasounds were done but FP could not be detected. In late second and third trimester it is not always possible to diagnose FP by ultrasound examination, the diagnosis of FP can be made as early as four weeks after conception by using intravaginal probe while doing ultrasound [15]. When FP is diagnosed early, expectant management with close fetal and maternal surveillance is advised [2, 3] and serous compromises in the surviving fetus may be anticipated and this should be discussed with parents [16]. Vilamentous insertion of the cord is increased in twin pregnancy, but rare in FP [17], similarly in our case vilamentous insertion of cord was not found and FP was attached to the placenta with a rudimentary

cord. It is important when searching for FP or other placental pathologies that inspection of placenta is done carefully. On perusal of literature no correlation to maternal age, parity or gravidity with FP has been discovered [18], similarly no such correlation could be withdrawn from our case.

CONCLUSION:

We report a case of FP without fetal and maternal complications during pregnancy and the post-partum period. Serial ultrasound examinations with the use of modern ultrasound machines of good resolution is important for the diagnosis of multiple gestations and routine placental examination to search for fetus papyraceus is mandatory as primary concern of fetus papyraceus is its effects on the surviving fetus and the mother.

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