

# Fetus Papyraceous- A Rare complication of Twin Pregnancy- A Case Report.

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## ABSTRACT

Fetus papyraceous is defined as a compressed fetus- mummified, parchment like remains of a dead twin that is retained in-utero after intrauterine death in the second trimester. It may be completely innocuous or may cause complications during labour and delivery. We report a rare case of fetus papyraceous in a 30yrs primigravida at 37 weeks of gestation where an innocuous fetus papyraceous was discovered at the time of caesarean. . Fetus papyraceous occurs when one twin dies later in pregnancy, second trimester or later, but the pregnancy continues. Causative factors for fetus papyraceous include fetal abnormalities (genetic or chromosomal), velamentous or marginal insertion of cord into the placenta, twin-twin transfusion syndrome, true cord knot, cord stricture and placental insufficiency. . Routine first trimester ultrasound is essential for early diagnosis of twin pregnancy and to determine zygosity. Keeping twin pregnancies under close follow-up is recommended.

**Keywords:** Twin, fetus, papyraceous, caesarean , zygosity.

## INTRODUCTION

Fetus papyraceous is defined as a compressed fetus- mummified, parchment like remains of a dead twin that is retained in-utero after intrauterine death in the second trimester.<sup>[1]</sup> Incidence of multiple pregnancies has risen manifold in recent years and so have the complications that are unique to multiple gestation, fetus papyraceous being one of them. At times, the papyraceous fetus may be completely innocuous, revealing its presence only after the expulsion of placenta and membranes of the surviving twin. At other times, it may cause problems for the existing twin or dystocia during labour.

## CASE REPORT

A 30 years old primigravida, presented in emergency at 37 weeks of gestation, referred from primary health centre. She was a booked in a primary health centre and had undergone routine antenatal investigations. Her haemoglobin was 11g%, and

HIV and VDRL were non-reactive. She had 3 antenatal visits during pregnancy and had only one ultrasound done at 20 weeks of gestation showing twin alive foetuses in intra-uterine cavity with a single placenta. Inter-twin membrane could not be visualised during this scan. No congenital malformations could be visualised in either of the foetuses and amniotic fluid was adequate. Ultrasound was not repeated in pregnancy. At the time of admission, general condition of the patient was stable with pulse rate of 80 beats/min and Blood pressure of 120/80 mmHg. She was short-statured with height of 142cm. On abdominal palpation, uterus was term sized, presenting part was breech and uterine contractions were present. Only one fetal heart could be auscultated which was regular, 150 beats per min. On vaginal examination, cervix was 1.5 cm dilated and presenting part was breech. As ultrasound services were not immediately available, decision was taken for caesarean section in view of breech presentation. During caesarean section, first fetus was delivered as breech. It was a male child weighing 2.5 kg and cried immediately after birth. Second fetus was papyraceous with a separate placenta and separate sac, and weighing 220g in total.[Figure 1].

Post-operative period was uneventful, urinary catheter was removed on first post-operative day and patient was discharged on third post-operative day along with baby.

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**Figure 1: Healthy male fetus 2.5 Kg(left) and Ppyraceous fetus with placenta(right)**



**Figure 2: Papyraceous fetus with its placenta weighing 220 g in total.**

## DISCUSSION

Twin gestation is a common occurrence in today's era especially due to infertility treatments, whether it is ovulation induction or assisted reproductive technologies and in-vitro fertilization. 30% of conceived twin pregnancies result in birth of singleton fetus.<sup>[2]</sup> Demise of one twin in the first trimester results in a vanishing twin. Fetus papyraceous occurs when one twin dies later in pregnancy, second trimester or later, but the pregnancy continues - occurring in 1 in 184 pregnancies (0.54%).<sup>[3]</sup> Fetal demise in third trimester results in delivery of a macerated fetus. Causative factors for fetus papyraceous have been debated in literature. Fetal abnormalities, whether genetic or chromosomal, have been implicated.<sup>[2]</sup> Velamentous or marginal insertion of cord into the placenta is one of the proposed mechanisms.<sup>[4]</sup> Other causes could be twin-twin transfusion syndrome, true cord knot, cord stricture and placental insufficiency.<sup>[4]</sup> No cause could, however, be ascertained in our patient.

In the era before routine use of obstetric ultrasound, diagnosis was possible only after delivery. These

days, multiple pregnancy can be diagnosed at 4-5 weeks and subsequent ultrasounds can diagnose demise of one twin with continuation of pregnancy. Pregnancy is then kept under strict follow-up for maternal and fetal well being.

The primary concern after demise of one twin is its effect on the surviving twin and on the mother. The most important factor predicting the outcome of co-twin is chorionicity. In the study by Ong et al, following the death of one twin, the risk of monochorionic and dichorionic twin demise was 12% and 4% respectively. The risk of preterm delivery was 68% for monochorionic twins and 57% for dichorionic twins. The risk of neurological abnormality in the surviving co-twin was 18% for monochorionic and 1% for dichorionic twins.<sup>[5]</sup> Maternal complications include pre-term labour, infection from a retained fetus, severe puerperal hemorrhage, consumptive coagulopathy and a low-lying fetus papyraceous causing dystocia during labour. After one twin demise is noted on second trimester ultrasound, maternal ongoing surveillance for infections and coagulopathy is initiated.

## CONCLUSION

A case of fetus papyraceous with no adverse effects on mother or surviving twin is reported. Cause of demise of fetus could not be ascertained. Routine first trimester ultrasound is recommended for early diagnosis of twin pregnancy and to determine zygosity. Keeping twin pregnancies under close follow-up is recommended so as to diagnose any adverse pregnancy event at the earliest and act in accordance.

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