



Incidental Finding of Fetus Papyraceus Following Cesarean Delivery

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Abstract

Introduction: Fetus papyraceus is a rare condition in which one fetus of multiple gestations dies and becomes. We report an incidental diagnosed case of fetus papyraceus following cesarean delivery.

Case Presentation: A 22 years gravida 2 para 1 living 1 lady with previous normal vaginal delivery presented to obstetrics emergency room of Dhulikhel Hospital, Kavre District in active phase of labor at 33 completed weeks of gestation with compound presentation (presenting parts were vertex with hand). This unsupervised case was posted for emergency caesarean section in view of compound presentation in labor. She delivered alive female baby weighing 1700 grams with good APGAR score but the newborn was shifted to NICU in view of prematurity.

On placenta examination, twin gestation was revealed as another atrophied placenta without any visible cord and with recognizable head, body and limbs of fetal papyraceus was seen in separate amniotic cavity. Her postoperative period was uneventful. On fourth post-operative day, both mother and baby were discharged from the hospital. Their postnatal period was also uneventful.

Conclusion: The intrauterine diagnosis of fetus papyraceus by sequential ultrasound examinations was possible. And it is possible to avoid certain complications with expectant management with close fetal and maternal surveillance in many occasions. But this opportunity may not be possible in unsupervised case particularly in rural set up.

Keywords: Cesarean delivery; Compound presentation; Fetus papyraceus

Introduction

Fetus papyraceus is a rare incident with a reported incidence of one in 12,000 pregnancies [1]. Intrauterine fetal demise of a twin early in pregnancy with retention of such fetus for at least 10 weeks results in mechanical compression and leads to fetus papyraceus [2]. Fetus papyraceus can occur in both monochorionic and dichorionic pregnancies [3]. Monochorionic twin pregnancies are associated with several complications [4,5]. During ultrasonological evaluation of other pregnancy-related problems, occasionally a mummified fetus is incidentally diagnosed [5]. Unfortunately, this was unsupervised case with no obstetrical ultrasound performed during antenatal period. Ultrasound facilities were not available in rural health institution. And there was no time and suspicion to evaluate fetus papyraceus when this case presented to obstetrics emergency room with preterm labor with compound presentation.

We present a case of a 22 years lady with a dichorionic twin pregnancy consisting of one normal fetus and one fetus papyraceus diagnosed only after caesarean delivery. About decade back, a successful pregnancy outcome with vaginal delivery of a term single live fetus of twin pregnancy with fetus papyraceous, (vanished in second trimester) was reported from Nepal [6].

Case Presentation

A 22 years gravida 2 para 1 living 1 lady with previous normal vaginal delivery presented to obstetrics emergency room of Dhulikhel Hospital, Kavre District in active phase of labor at 33 completed weeks of gestation with compound presentation (presenting parts were vertex with hand). She was unsupervised case from Bhimkhori rural municipality of Kavre District. Her hemoglobin level, HIV and hepatitis B status were not checked and no obstetrical ultrasound was performed during antenatal period.

After necessary clinical workup and investigations, she was posted for emergency caesarean

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Figure 1: Body and limbs of fetal papyraceus was seen in separate amniotic cavity.



Figure 3: Body and limbs of fetal papyraceus was seen in separate amniotic cavity.



Figure 2: Body and limbs of fetal papyraceus was seen in separate amniotic cavity.

section in view of compound presentation in labor. She delivered alive female baby weighing 1700 grams with good APGAR score of 7/10 and 8/10 in first and fifth minutes after delivery. Later newborn was shifted to NICU in view of prematurity.

On placenta examination, twin gestation was revealed as another atrophied placenta without any visible cord. But recognizable head, body and limbs of fetal papyraceus was seen in separate amniotic cavity (Figures 1-3). Hence the diagnosis was dichorionic diamniotic twin made. She withstood the surgery well; her estimated blood loss was 200 ml. Her postoperative period was uneventful. On fourth post-operative day, both mother and baby were discharged from the hospital. She was followed up in nearest government health post after two weeks and six weeks after delivery.

Discussion

Fetus papyraceus can occur in both uniovular and binovular twins. Contrast to this case, fetus papyraceus is more common in uniovular twins. In some instances, the dead twin will be compressed into a flattened, parchment-like state and recognized as fetus papyraceus [3]. Most of the fluid will get absorbed from the fetus if it is retained more than 8 weeks in utero. The incidence of fetus papyraceus ranges between 1:184 and 1:200 twin pregnancies [4]. The complications related to fetus papyraceus depend on whether it is a monochorionic or dichorionic twin pregnancy [4,5].

The cause is usually unknown, but is associated with twin-to-twin transfusion, fetal genetic or chromosomal abnormalities and improper cord implantation such as velamentous cord insertion [4,6-8].

In 80s fetus papyraceus used to diagnose by X-ray, in a series of 11 cases, six cases were diagnosed by abdominal X-ray [9]. Now a

day's such compressed fetus can be diagnosed early during antenatal care visits by imaging studies such as ultrasonography [5,10,11]. Unfortunately, this was unsupervised case with no obstetrical ultrasound performed during antenatal period. Ultrasound facilities were not available in rural health institution. In the first trimester, this may present as vaginal bleeding especially if the fetus is completely absorbed and in most cases there are no complications afterwards. But our patient didn't have first trimester bleeding, otherwise she would have visited to us and evaluated in detail.

In the second or third trimesters, it is usually associated with several complications such as preterm labor as occurred in this patient and hemorrhage, sepsis, consumptive hemorrhage and labor dystocia. These complications become severe when it is a monochorionic placenta [4,5]. In monochorionic twinning, the risk for cerebral palsy in surviving twin, aplasia cutis, and congenital malformations such as microcephaly or hydrocephalus are high [12-14]. This case was a dichorionic twin; the fetal complications like prematurity and low birth weight were encountered.

When fetus papyraceus is diagnosed early, expectant management with close fetal and maternal surveillance is advised [4,5]. This could be done by performing serial ultrasound preferably every 2 to 3 weeks and monitoring of coagulation profile every fortnight. Although other reports have shown a normal vaginal delivery is possible [6,9], we opted for caesarean due to preterm prelabor rupture of membranes with compound presentation on arrival to obstetric emergency room. In this patient, the diagnosis of a fetus papyraceus was discovered after placental examination following caesarean delivery.

Conclusion

The intrauterine diagnosis of fetus papyraceus by sequential ultrasound examinations was possible. And it is possible to avoid certain complications with expectant management with close fetal and maternal surveillance in many occasions. But this opportunity may not be possible in unsupervised case particularly in rural set up.

Authors' Contribution

Kayastha B and Lamsal M managed the patient at the maternity unit, did the surgery and drafted the first manuscript. Tamrakar SR supervised the case and reviewed manuscript draft which was later approved by both authors.

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