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Hemorrhoidectomy in the Third Trimester of Pregnancy: A Case Report of A Primipara With Twin Gestation

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ABSTRACT

Hemorrhoids in pregnancy rarely require surgical treatment. Hemorrhoidectomy when done in pregnancy may result in complications for the mother or fetus. With multiple gestations (twin gestation in this case), the risk of these complications could be higher, more so, when done in the third rather than second trimester. We report the management of a 29yr old woman with twin gestation and in situ cervical cerclage who developed strangulated hemorrhoids at 30 weeks gestation. She had successful hemorrhoidectomy, continued her pregnancy until vaginal delivery of a healthy set of male twin neonates at 37 weeks gestation without recurrence.

1 Introduction

Hemorrhoids are varicosities of the veins of the rectum with mucosal covering at or near the anal canal[1]. They occur when the external hemorrhoidal veins become varicose (enlarged and swollen), causing itching, burning, painful swellings at the anus, dyschezia (painful defecation), and hematochezia (bleeding while stooling)[2]. Hemorrhoids are quite a common occurrence in pregnancy. Due to the hormonal changes in pregnancy and increased intra-abdominal pressure, pregnancy predisposes women to developing hemorrhoids[2]. It is estimated that up to 35% of pregnant women develop the condition[3, 4]. Hemorrhoids are most prevalent in the third trimester, with up to 85% of pregnant women being affected in certain populations[5]. Most hemorrhoids occurring in pregnancy present mild and transient symptoms, and can be treated by increasing fiber content in the diet, administering stool softeners, increasing liquid intake, and training in toilet habits[2]. However, more serious complications such as inflammation, thrombosis and prolapse, occur occasionally[2], sometimes requiring surgical interventions. The pains of a complicated hemorrhoid can be very excruciating, especially to pregnant women, significantly affecting their quality of life. Although it is thought that hemorrhoidectomy in pregnancy would be safer in the second trimester, its safety in the third trimester has been reported[6]. Surgeons are usually reluctant to operate due to potential complications to the mother and fetus[6]. It is plausible that these potential complications would be heightened in cases of multiple gestations.

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2 Case presentation

Mrs. N.A, a healthy 29yr old gravida 2 Para 1 mother of two (previously had a vaginal twin delivery) booked her index pregnancy at 10 weeks gestation in our facility. Previous early first trimester ultrasound scan at 7 weeks gestation done prior to booking had revealed a viable dichorionic-diamniotic twin gestation. Booking investigations done were normal: blood group - A RhD+ve, genotype – AA, HBsAg – Negative, Retroviral screening – seronegative, VDRL – non-reactive, HB – 9.3g/dl. Ultrasound scan at this time confirmed a viable twin gestation at 10 weeks. She was placed on double dose hematinic and prophylactic antimalarial with oral proguanil 200mg daily.

At about 14 weeks of gestation, she had a vaginal bleeding episode requiring in-patient management and blood transfusion. Admitting HB at this time was 7.9g/dl, other parameters of complete blood count where within the normal range, although blood film revealed microcytosis with malarial parasite, urine and stool microscopy and culture were normal, yielding no growth, a repeat ultrasound scan revealed a healthy twin fetuses at 14 weeks gestation with low-lying placenta. She was treated for malaria with quinine infusion (600mg in 500ml of 10%D/W over 4 hours, 8hrly for 48 hours) followed by 300mg oral quinine t.d.s for another 3 days. She was subsequently transfused with 2 units of blood. She had cervical cerclage inserted after stabilization and was later discharged. Post transfusion HB done before discharge was 11.0g/dl.

She continued her antenatal visits, had routine hematinic, calcium supplement and 4 weekly intermittent preventive treatment for malaria with sulphadoxine-pyrimethamine (IPTsp) and was well until about 20 weeks when she first complained of hemorrhoidal symptoms which she also had in her previous pregnancy and even during the inter-pregnancy interval. These included dyschezia, hematochezia and reducible rectal prolapse. Conservative management including use of high fiber diets, administering stool softeners, increasing liquid intake, and training in toilet habits was instituted with significant symptomatic relief. Anomaly ultrasound scan done at 21 weeks of gestation showed viable male twin fetuses with satisfactory growth and wellbeing. However, at 30 weeks gestation, she represented in acute hemorrhoidal crisis characterized by excruciating pains and irreducible rectal prolapse which was later examined and found to have strangulated. At presentation she was initially managed with antibiotics and sitz bath without symptomatic relief before diagnosis of strangulated hemorrhoid was made. Figure 1 is a picture of the hemorrhoid at this presentation.

Surgical intervention was immediately arranged. She had hemorrhoidectomy the next day under a saddle block. Intraoperative findings were those of closed column hemorrhoids at 7 and 11 o'clock positions. The molds were excised and flaps closed with vicryl suture size 2/0. Postoperatively, patient was managed with Intravenous fluids, parenteral antibiotics (amoxicillin-clavulanic acid and metronidazole) and analgesics (pentazocine and paracetamol), salbutamol infusion (500mcg injection in 500ml of 0.9% normal saline titrated over 8 hours for the first 24 hours followed by oral salbutamol 2mg t.d.s for 2 weeks) and sitz bath. Patient did very well and was discharge home on the fifth postoperative day. Ultrasound done just prior to discharge showed healthy twin fetuses at 31 weeks weighing 1.4 and 1.5 kg for twin I and twin II respectively with fundo-anteriorly sited placentas.

She continued her antenatal care and was subsequently seen weekly until 36 weeks gestation. The first twin maintained a cephalic presentation and ultrasound scan done at this visit revealed healthy twin

fetuses both in cephalic presentation weighing 2.34 and 2.50kg for twin I and twin II respectively. Complete blood count was normal with a HB of 10.5g/dl. At this point, the cervical cerclage was removed and patient given one week appointment. She presented a week later with complaints of labor pains. She was examined and found to be in labor. She was admitted into labor ward and managed following active management of labor protocol of the hospital and was delivered after 4 hours (Twin I – male 2.52kg after 3hrs 56min of admission; twin II – male 2.61kg, 5 minutes after delivery of twin I). Active management of the third stage of labor was instituted and patient did not require episiotomy.

Both mother and babies were discharged home on the third postpartum day after an uneventful postpartum course. She did not require hemorrhoid treatment after 6 weeks of follow-up.



Figure 1: Complicated Hemorrhoid

3 Discussion

Hemorrhoids are common in pregnancy but largely asymptomatic. The prevalence of symptomatic hemorrhoids is higher in pregnant than in non-pregnant women[7,8]. In pregnant women with hemorrhoids, symptoms are usually mild and transient and include pain and intermittent bleeding from the anus[2,8]. Mrs. N.A had both and did relatively well with conservative management when she first complained until the onset of complications. Quality of life can be affected depending on the degree of pains and usually varies from mild discomfort to difficulty in dealing with everyday activity[9]. This patient's quality of life was severely affected as she was rendered unable to carryout normal daily activities due to the pain of the hemorrhoids coupled with the frequent discomforts of twin pregnancy from enlarging abdomen and fetal movements.

Hemorrhoids can be classified by severity into: first-degree hemorrhoids - which bleed but do not prolapse; second-degree hemorrhoids – which prolapse on straining and reduce spontaneously; third degree hemorrhoids – which prolapse on straining and require manual reduction; and fourth-degree hemorrhoids - which are prolapsed and incarcerated[10]. Mrs N.A presented at 30 weeks of gestation with a fourth-degree hemorrhoids. Fourth-degree hemorrhoids may become "strangulated" and present with acute severe pain[7]. This was the case in Mrs. N.A. Progressive venous engorgement and incarceration of

the acutely inflamed hemorrhoid leads to thrombosis and infarction[7]. This was prevented in this patient by prompt surgical intervention, hemorrhoidectomy.

Treatment of hemorrhoids during pregnancy is mainly directed to the relief of symptoms, especially pain control as the symptoms usually resolve spontaneously for most women soon after birth[8,9]. Medical management aimed at relief of pain and inflammation for Mrs. N.A proved futile because hers had become strangulated. Further complications that might have further endangered maternal and fetal wellbeing were averted by prompt hemorrhoidectomy. The concern, really, is the safety of the surgical procedure and the risk for maternal and fetal complications when done in the third trimester rather than second; and whether multiple (in this case twin) gestation heightens this risk(s). Although, Saleeby et al[6] in their study demonstrated safety of hemorrhoidectomy even in the third trimester, safety concerns remain. Part of the concern includes the increased risk for maternal sepsis, preterm contractions, preterm labor, prematurity and perinatal morbidity and mortality.

Mrs. N.A was meticulously managed at every stage especially during the antenatal period, intra- and post-operatively (at hemorrhoidectomy) and intrapartum; in achieving the desired outcome of a healthy mother and her healthy twin male infants. This case illustrates our successful clinical and operative strategies for the safe management and vaginal delivery of healthy twin fetuses after a third trimester hemorrhoidectomy in a low resource setting.

4 Consent

Written informed consent was obtained from the patient for her anonymous information to be published in this article.

5 Conflicts of Interests

The authors declare that they have no conflicts of interests

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