

## Advanced abdominal pregnancy in HIV-infected women: A case series



**Wilda Rios Leyva, MD**

**Eyob Tadesse Nigussie, MD, PhD**

**Roxanne Nonkwelo, MB ChB**

**Natalia Novikova, FRANZCOG, PhD**

**G Justus Hofmeyr, MRCOG**

**Department of Obstetrics and Gynaecology, East London Hospital Complex and Walter Sisulu University, E Cape**

We report 3 cases of advanced abdominal pregnancy in HIV-positive women managed at the East London Hospital complex between 2005 and 2009. Despite the complexity of diagnosis and management of this life-threatening condition, no adverse effects occurred in the women in our series and 2 of the babies survived.

Advanced abdominal pregnancy is a rare, complex condition that demands careful management.<sup>1</sup> The reported worldwide incidence is around 1:10 000 births.<sup>2,3</sup> There is general agreement that unless the entire blood supply of the placenta can be secured with minimal risk to the woman, the placenta is best left *in situ*. If it is left *in situ*, there is a need to follow up the patient with beta-HCG and ultrasonography for evidence of placental absorption.<sup>4</sup>

We managed 5 cases of advanced abdominal pregnancy at the East London hospital complex between 2005 and 2009. In 3 of these cases the placenta was completely removed, and in the other 2 it was left *in situ* owing to anticipated surgical difficulties. Three women in our case series were HIV-positive. Since we were able to find no previous reports on advanced abdominal pregnancy in HIV-positive women to guide our practice, we report on the 3 cases we encountered.

### Case reports

Details of the 3 HIV-positive patients with advanced abdominal pregnancy managed by us at the East London hospital complex between 2005 and 2009 are set out in Table I.

### Discussion

To our knowledge this is the first report of advanced abdominal pregnancy in HIV-positive women. The prevalence of HIV infection among pregnant women in our clinical setting is 30%. Although abdominal pregnancy is rare, it may be more common in women with HIV infection because they tend to have a higher rate of sexually transmitted infection than the general

population, which predisposes them to tubal disease and may therefore result in abdominal pregnancy.

The co-existence of HIV and abdominal pregnancy raises specific management dilemmas: the increased risk of bleeding if attempts are made to remove the placenta in immune-compromised women, and the risk of infection if the placenta is left *in situ*. The placenta was removed in 2 of our 3 HIV-positive patients and left *in situ* in 1, with no complications.

The use of methotrexate to hasten placental involution and resorption has been reported. However, administration of methotrexate may lead to accelerated placental destruction with accumulation of necrotic tissue and ultimately infection and abscess formation, and we therefore avoided it.<sup>4</sup>

Another concern arising from the combination of advanced abdominal pregnancy and HIV is transmission of HIV infection from mother to fetus. The extent of this problem is unknown, and unfortunately we are unable to report on the HIV status of the 2 surviving babies in our series.

The diagnosis of advanced extra-uterine pregnancy is easily missed at routine ultrasound scanning, as occurred in 3 of our 5 cases. Omental covering of the gestational sac is common and may create a surrounding layer with very similar ultrasound appearance to the uterine wall, and the empty uterus can easily be missed on a routine transabdominal scan. A high index of clinical suspicion is required in women with chronic abdominal pain, malpresentation or prolonged pregnancy, even if a routine ultrasound scan has detected no abnormality. A specific

**TABLE I. DETAILS OF 3 CASES OF ADVANCED ABDOMINAL PREGNANCY IN HIV-POSITIVE WOMEN**

	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>
Age (yrs)	29	32	29
Parity	0	4	0
CD4 count	239	243	542
Antiretrovirals	Yes	No	No
Gestation at diagnosis (wks)	42	36	20
Gestation at laparotomy (wks)	42	36	34
Management of placenta	Removed completely (Fig. 1)	Removed completely	Left <i>in situ</i> , resorbed fully on follow-up ultrasound
Weight of baby (g)	2 600	2 400	2 500
Condition of baby	Good	Macerated stillborn	Good
Condition of mother	Good	Good	Good



Fig. 1. Placental implantation in case 1.

search should be made for a small, empty uterus, which may not be easy to identify on a transabdominal scan. Transvaginal ultrasound examination may be useful.

Growth impairment is common due to suboptimal placental blood flow, and early diagnosis is important to pre-empt fetal death.

Two of the babies in our series were born alive, and no maternal death occurred.

### Conclusion

In this small series, no adverse effects occurred in HIV-positive women with advanced abdominal pregnancy.

1. Worley KC, Hnat MD, Cunningham FG. Advanced extrauterine pregnancy: diagnostic and therapeutic challenges. *Am J Obstet Gynecol* 2008;198(3):297.e1.
2. Cotter A, Izquiero L, Heredia F. Abdominal pregnancy. *TheFetus.net*. <http://www.sonoworld.com/fetus/page.aspx?id=1032> (accessed 29 July 2011).
3. Opare Addo HS, Deganus S. Advanced abdominal pregnancy: a study of 13 consecutive cases seen 1991 and 1994 at Kanifo Anakye Teaching Hospital, Kumasi, Ghana. *Afr J Reprod Health* 2000;4(1):28-39.
4. Cetinkaya MB, Kokcu A, Alper T. Follow up of the regression of the placenta left *in situ* in an advanced abdominal pregnancy using the Cavalieri method. *J Obstet Gynaecol Res* 2005;31(1):22.