

## Advanced abdominal pregnancy with alive fetus : A case report and review

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### Abstract

Advanced abdominal pregnancy (AAP) is a rarity that a few Gynecologists encounter during their professional carrier. AAP usually has a dramatic & catastrophic consequence both for the fetus & for the mother. Difficult to diagnose preoperatively. Though relatively rare, we received an AAP at term with alive fetus in RMCH, Rajshahi. After laparotomy, a healthy female baby was delivered.

### Introduction

Advanced abdominal pregnancy (AAP) is defined as a pregnancy of over 20 weeks gestation with a fetus living in the mother's abdominal cavity external to the uterine cavity & fallopian tube.<sup>1</sup> Occasionally, an ectopic pregnancy aborts backwards down to a tube or bursts out of it without killing the patient & embeds itself elsewhere in the abdominal cavity or an ovum is fertilized outside a tube on the surface of an ovary & implants in the abdominal cavity anywhere,<sup>2</sup> but as the placenta is large, it is always attached to the gut or omentum somewhere.<sup>3</sup> The etiology of ectopic pregnancy is not clearly understood but patient with drug induced ovulation & PID has been reported to increase occurrences.

Tubal damage following PID may cause increased risk for ectopic as well as abdominal pregnancy.<sup>4</sup> An abdominal pregnancy is thus usually a rare complication of ordinary ectopic pregnancy. The estimated incidence is 1:3000 to 1:20,000 of births.<sup>5</sup> The maternal mortality

during surgery but only 20% survive.<sup>6</sup> Despite modern diagnostic tools, in one study, fetal death occurred in all of the 15 cases of abdominal pregnancies.<sup>7</sup> Another study of 35 advanced abdominal pregnancies; fetal salvage rate was only 11.4%.<sup>8</sup> Recently we encountered an AAP with alive fetus diagnosed at term. On laparotomy the diagnosis was confirmed & an alive female baby was delivered.

### Case report

A 36 years old multiparous woman admitted in the hospital at her 40 weeks pregnancy with severe abdominal pain & respiratory distress. She had no per vaginal bleeding or watery discharge & patient was not in labour. According to the statement of the patient, she developed severe lower abdominal pain with fainting attack & slight per vaginal bleeding at months of pregnancy. She was managed conservatively by a local doctor & pain was subsided within 3-4 days. Thereafter she had no remarkable complain but she had anorexia & diffuse dull aching pain in the abdomen. She had no regular AN check up but throughout her pregnancy she did USG, 3 times at 19th, 27th & 37th weeks of gestation for her abdominal pain. Every time it was diagnosed as an intra uterine pregnancy. Two days before her admission she developed excessive swelling of legs & respiratory distress along with severe abdominal pain.

On admission, the patient was dyspoenic, moderately anaemic but haemodynamically stable. Examination of the heart & lungs showed no abnormality, only respiratory rate was elevated (25-30/min). On abdominal examination, uterine contour was not well-defined, fetal parts felt abnormally easy just below the skin, fundal height was 34 weeks size, fundal grip was empty & FHS was audible above the level of umbilicus.

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## Case Report

Per vaginal examination showed, cervix was pushed to the left & the presenting part was high up. Our first thought was that it was a case of ruptured uterus, but as the patient was haemodynamically stable & not in labour, our second thought went in favour of abdominal pregnancy. For confirmation another USG was done in the Dept. of Nuclear Medicine, RMCH. The report showed that it was 40 weeks intra abdominal pregnancy with alive fetus with retro placental clots. Uterus was bulky & separated from the gestational sac & the cavity was empty, so decision was taken for laparotomy.

### Operative findings

On opening the peritoneum, the baby was found within the abdominal cavity, covered by a pseudo sac. Uterus was enlarged about 16 weeks pregnancy size and was separated from the gestational sac. After giving incision over the pseudo sac, a living baby was brought out by tying & cutting the umbilical cord. Placenta was within the sac attached with the intestinal coils & the mesentery by a pedicle. So placenta was removed easily & totally after cutting the pedicle.

Baby's Apgar score was satisfactory (7 at 5 min.) & baby was referred to pediatric unit for better management. The patient was settled throughout the post operative period. On 8th post operative day patient was discharged with healthy wound & healthy baby.



Figure 1: Placenta attached with the intestinal coils and mesentery



Figure 2: Uterus



Figure 3: Placenta was removed manually



Figure 4: The delivered fetus

### Discussion

Abdominal pregnancy falls under the umbrella of ectopic or extra uterine pregnancy. It is usually secondary.<sup>9</sup> To be considered a primary abdominal pregnancy, the pregnancy must meet the three criteria:<sup>10, 11</sup>

1. Both tubes & ovaries must be in normal condition with no evidence of recent or remote injury.
2. No evidence of utero peritoneal fistula should be found.
3. The pregnancy must be related exclusively to the peritoneal surface & be early enough to eliminate the possibility that it is a secondary implantation following a primary implantation in the tube.

In our case, the three criteria for primary abdominal pregnancy were absent. So we assume that it may be a case of secondary abdominal pregnancy.

An undiagnosed AAP which progresses to term may be asymptomatic. In any case, a high index of suspicion is crucial & should be triggered by any of the following indirect clues:<sup>12, 13</sup>

- Persistent abdominal pain from 26 to 28 weeks onwards of variable severity, which is not well localized.
- Perception on the part of the mother or physician that something is not right.
- Impossibility to delineate uterus & feels 'odd' during palpation.
- Fetal parts may be abnormally easy or abnormally difficult to feel.
- Persistent abnormal fetal lie.
- Oligo hydramnios or intraperitoneal maternal fluid.
- Displaced cervix or abdominal mass palpated apart from the fetus.
- Inability to stimulate uterine contractions with oxytocin or any other uterotonic drugs.
- Unusual echographic appearance of the placenta.

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USG is the most effective method for diagnosis as it can usually identify an abdominal gestation from the non pregnant uterus. In some cases, MRI can be useful to demonstrate the relationship between the fetus, the cervix & the myometrium.<sup>14</sup> Although USG was done several times in rural setting, our case could not be diagnosed as abdominal pregnancy before admission.

Treatment of abdominal pregnancy is surgical. The principal controversy concerning management of AAP is whether or not to remove the placenta. Because the abnormally implanted placenta's blood supply is diffuse & often unidentifiable, attempts to remove it can incite catastrophic hemorrhage.<sup>15</sup> A placenta left in situ might resorb spontaneously but if it does not, the risk of infection, necrosis & the need for a second surgery is considerable. Most authors agree that the placenta should be removed provided its blood supply is identified & can be ligated without damaging other organs. If the blood supply can not be identified & safely legated, the placenta should be left in place & the patient should follow for possible complications. Some have advocated the use of methotrexate treated with varying degree of success. Placental involution is followed by serial ultrasonography & beta hCG. Risks associated with leaving the placenta in situ include bowel obstruction, fistula formation & sepsis as tissue degenerate.<sup>16,17,18</sup> In our case, as the placenta was within the pseudo sac & pedical was present, it could be removed completely.

### Conclusion

Abdominal pregnancy is a serious and potentially life threatening condition. The maternal mortality rate is estimated between 0.5%-18%. As abdominal pregnancy causes few symptoms, it is difficult to differentiate abdominal pregnancy from intrauterine pregnancy. Careful history taking and meticulous examination along with good ultrasonography may provide a near concluding diagnosis. Repeated abdominal pain in

pregnancy needs special attention and should be one of the differential diagnoses of pregnancy with abdominal pain.

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