

# Advanced secondary abdominal pregnancy

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## Abstract

**In secondary abdominal pregnancy, due to poor placentation and poor decidual reaction, the placenta may invade and erode maternal vessels. Pregnancy may terminate at any time resulting in massive intraperitoneal bleeding. Clinical findings were bulky uterus at 6 months of gestation with enlarged abdomen and haemoperitoneum; possible diagnosis of secondary abdominal pregnancy was confirmed by ultrasound. We were able to prevent maternal loss by prompt diagnosis and management.**

*Keywords: Secondary abdominal pregnancy; haemoperitoneum.*

## Introduction

Ectopic pregnancy refers to the implantation of fertilized ovum on any tissue other than endometrium of uterus.

Abdominal pregnancy is rare and occurs in 0.03%<sup>1</sup> to 1.4%<sup>2</sup> of all ectopic pregnancies. The incidence of abdominal pregnancy ranges from 1/3372<sup>3</sup> to 1/10200 deliveries.<sup>4</sup> Stafford and Rajan 1977<sup>5</sup> have reported incidence of 1 in 7269 births. In Parkland hospital abdominal pregnancy is encountered in 1 in 25000 deliveries.<sup>6</sup> Dixon and Steward 1960<sup>7</sup> reported two cases occurring fewer than 10000 deliveries in West Indies.

Abdominal pregnancy is classified as primary and secondary. The latter is more common and results from early tubal abortion or rupture or after uterine rupture and subsequent implantation in abdominal cavity.

The incidence of abdominal pregnancy is increased following gamete intrafallopian transfer in vitro fertilization and ovum transfer.<sup>8,9</sup> Endometriosis, tuberculosis and IUCD may also contribute.<sup>9-12</sup>

The mortality rate in abdominal pregnancy is 17 times greater than the overall pregnancy. Risk of death is 7-8 times greater than ectopic pregnancy and 90 times greater than in intrauterine pregnancy.

Maternal mortality varies from 4-29%, 2-10%<sup>13,14</sup> to 4-10%.<sup>15</sup> Twenty percent mortality in 20 patients with advanced abdominal pregnancy has been described.<sup>16</sup> In their review of 10 cases of abdominal pregnancy Delke observed no mortality.<sup>17</sup>

Fetal morbidity is notoriously as high as 75%.<sup>18</sup> Fetal death occurred in all 15 cases reported by Martin *et al.*<sup>19</sup> Clark and Jones<sup>15</sup> gave fetal salvage rate of 11.4% in their study of 35 abdominal pregnancies.

Stafford and Rajan 1977<sup>5</sup> cite 6% maternal mortality and 91% perinatal mortality.

"Contrary to experience with tubal pregnancy recurrence in non tubal site (abdominal pregnancy) is rare."

## Case Report

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A 31-year old nulliparous female, married but living single was received in shock in the Emergency unit of TU Teaching on 5/12/046 with a history of severe epigastric pain for approximately the last two days following a period of amenorrhoea of 6 months.

On general examination, she was extremely pale. Her blood pressure and pulse were unrecordable. After intravenous infusion of liberal amounts of fluid, her systolic B.P. was recordable at 60 mm. of Hg and pulse rate was 120/min. Abdominal examination revealed 28-30 wks of pregnancy with fullness in the flanks. The abdomen was very tender to touch. Bimanual examination of uterus confirmed the uterus to be bulky and the mass to be totally abdominal. Fornices were unremarkable. Cervical excitation was present.

## Investigation

Hb 5.5 mg%, WBC 16000 cum, N 88, L12, Urine-NAD, Blood sugar 6.2 mmol/L, Urea 8 mmol/L and Amylase 400 IU.

## USG

Bulky uterus with multiple echogenic area. No fetal sac in the uterus. There was a possible evidence of head, which was very ill defined in the abdomen. There was also plenty of fluid and blood in the peritoneal cavity.

A diagnosis of ruptured ectopic pregnancy was made; 1200 ml of blood was transfused raising the Haemoglobin to 8.8 gm% and immediately laparotomy was performed.

On opening the abdomen with lower midline incision, lots of dark red clotted blood drained out spontaneously. A half-torn placenta also emerged, which was pulled out. A partially compressed fetal head was identified to be lying transversely on the right side of the abdomen. It was extracted out and also the remaining portion of placenta adhered to omentum was taken out in piece meal. It was hard to identify the uterus as it lay sealed underneath the peritoneum. The uterus was exposed and found to be intact but tubes and ovaries were unremarkable. The peritoneal cavity was cleaned maintaining proper haemostasis with minimal handling of tubes and ovaries. An abdominal drain was kept and abdomen was closed in layers.

The fetus was 26 cm long and weighed 900 gms.

The post-operative period was uneventful. The drain was removed after 48 hours. Stitches were removed on the 6th post-operative day and the patient was sent home on the 7th day of operation.

## Discussion

Rare cases of secondary abdominal pregnancy have been reported following spontaneous separation of old caesarean scar, myomectomy scar<sup>20</sup>, rupture of rudimentary horn following uterine perforation during therapeutic or elective abortion and after total or subtotal hysterectomy.

Sometimes the initial symptoms of peritonitis may pass away and the fetus maybe retained in the abdominal cavity forming a mummified fetus or lithopaedian.<sup>21</sup> Gordon<sup>22</sup> described one such event where a patient passed a fetal femur per rectum from a dead mummified fetus, a late sequence of secondary abdominal pregnancy.

There are few scattered publications in the literature of live birth following laparotomy and abdominal delivery.<sup>23</sup>

Various bizarre terminations of abdominal pregnancy have been described.<sup>24,25,26,27</sup>

The fetus usually shows pressure malformation related to lack of protection provided by uterus, such as pressure deformities, facial limb deformities or pulmonary hypoplasia. The incidence of congenital malformation ranges from 20-40%.<sup>16</sup>

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