ABDOMINAL PREGNANCY : REPORT OF 1 CASE AND REVIEW OF THE LITERATURES

Piyanan APIWANTANAGUL, MD.

ABSTRACT

Abdominal pregnancy is a rare form of ectopic gestation. When it occures, its early diagnosis is difficult, owing to the atypical presentation and the low index of suspicion for the condition.

A 31-year-old woman case of abdominal pregnancy at hepatoduodenal ligament, just below to left lobe liver, presenting with dyspepsia was reported and the literatures were extensively reviewed.

CASE REPORT

A 31-year-old Thai farmer woman in Amphur kumtakar, Sakon Nakhon province, G3 P2-AO-2, last 6 years, LMP = 2 December 1999 x 3 days, was admitted at medical ward on 24 January 2000 due to right upper quadrant abdominal pain for 3 weeks without nausea, vomitting, diarrhea, fever or abnormal vaginal bleeding. Physical examination shows a women of her age. Blood pressure = 110/70 MM.Hg, pulse rates = 80 beats/min, Body temperature = 37 °C
Not pale, no jaundice
Heart and Lungs are normal

Abdomen : Mild generalized tenderness
Liver and spleen are impalpable
No abnormal mass
Normal bowel sound

Per Vaginal examination [PV] = normal size of uterus
No abnormal mass
Cervix is close uneffaced, no bleeding per os
Cervical excitation test = negative

She was sent to radiological department for transabdominal ultrasound examination, with an impression of Dyspepsia R/o acute cholecystitis.

Ultrasound finding : as figure 1 and 2

- abdominal pregnancy with viable active heart beats fetus, at just below left lobe of liver and portal vein, medial to IVC
- gestational sac = 3.3 cm. in diameter and crown rump length [CRL] = 20 mm., According to about 8 weeks gestational age
- normal size of uterus, no intrauterine gestational sac
- no free fluid in cal de sac
- normal : liver, gall bladder, CBD, pancreas, spleen, kidneys and urinary bladder.

Department of Radiology, Sakon Nakhon Hospital Amphur Muang, Sakon Nakhon 47000, Thailand.

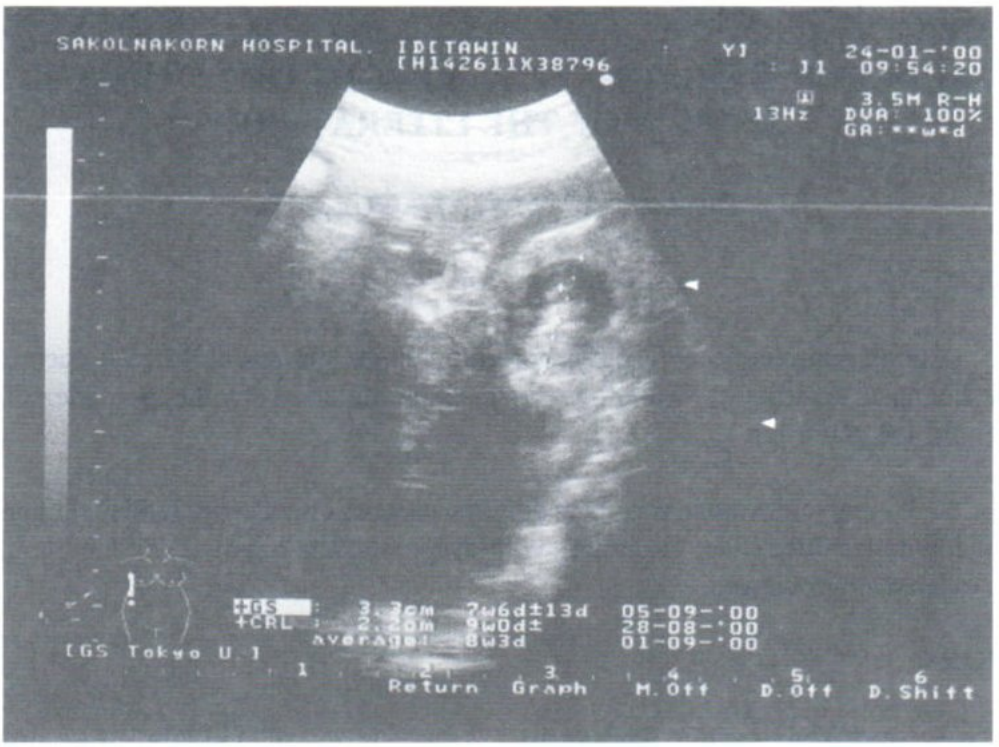

Fig.1 longitudinal scans at mid upper abdomen show abdominal pregnancy with viable fetus at just below left lobe liver and portal vein

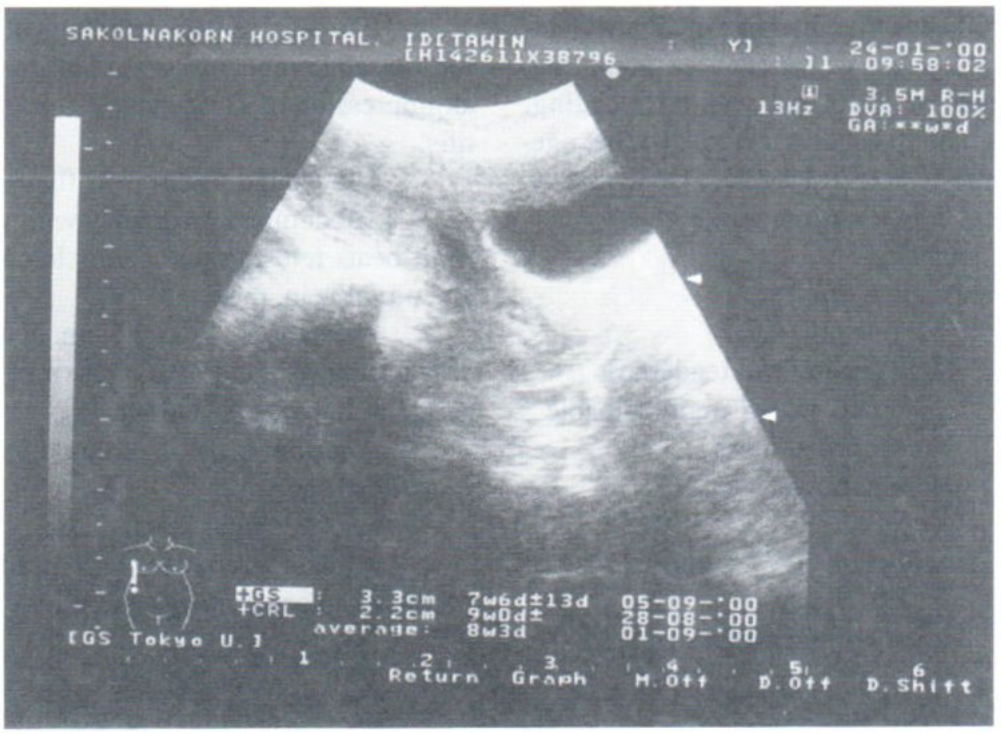

Fig. 2 longitudinal scans of uterus show normal size of uterus without intrauterine gestational sac

Urine pregnancy test is positive.

The final diagnosis is unruptured abdominal pregnancy with viable fetus.

Emergency laparotomy show :

1. Abdominal pregnancy : gestational sac adhere to hepatoduodenal ligament and in Foramen of Winslow.

2. placenta adhere to portal vein and duodenal loop

Gestational sac was removed and the placenta was left intra-abdominally.

DISCUSSION

Abdominal pregnancy is relatively rare. The incidence is estimated at 1 in 8000 births, and abdominal pregnancy represents 1.4 % of ectopic pregnancy.[1] In the united states[2] it has been estimated that there are 10.9 abdominal pregnancies per 100,000 births, and 9.2 abdominal pregnancies per 1000 ectopic gestations. It is more commonly seen in patients of low socio-economic status and in developing countries, age between 24-35 years, mean age 26 years.[3]

The prognosis is poor, with an estimated maternal mortality rate 0.5-18 % and perinatal mortality rate 40-95 %. The risk of dying from an abdominal pregnancy is 7.7 times higher than from other forms of ectopic pregnancy and 90 times of normal pregnancy.

Abdominal pregnancy has been classified by Studiford criteria as primary and secondary.

I. primary abdominal pregnancy : where by definition the tubes and ovaries are normal, there is no evidence of uteroplacental fistula and the pregnancy is related exclusively to the peritoneal surface early enough in gestation to eliminate the possibility of secondary implantation after a primary nidation else where.

II. Secondary abdominal pregnancy : which by definition usually occurs after tubal abortion or rupture, with subsequent implantation of the conceptus on a nearby peritoneal surface or intraligamentary extension.[4]

However, treatment is depend on presenting symptom and not depend on classification.

RISK FACTORS

1. Pelvic infection. There was one report of recurrent abdominal pregnancy in genital TB.
2. Ectopic gestation
3. Endometriosis
4. History of infertility
5. Prior tubal surgery[5]
6. Threatened abortion

DIAGNOSIS

Diagnosis of abdominal pregnancy is frequently difficult, may be delayed or missed diagnosis. Early diagnosis requires a high index of suspicion and clinical features includes :

1. abdominal pain[6] (80% of cases) : this is noticed in early pregnancy and varies from mild discomfort to severe and unbearable pain and there is often abdominal tenderness

2. fetal movement may be painful or absent with fetal death.

3. Vaginal bleeding (30% of cases) : especially in early pregnancy.

4. nausea, vomiting and general malaise (20% of cases) in some there may be additional features of bowel obstruction.

5. fetal parts are easily palpable.

6. abnormal lie (15-20 % of cases)

7. Vaginal examination often reveals a closed uneffaced cervix occasionally displaced anteriorly.

8. absence of palpable uterine contractions to oxytocin stimulation or to induction of labour by prostaglandins is one of the most helpful clinical clues to the diagnosis.

Other atypical presentation were reported are :

1. Hemoperitoneum[7] with shock
2. Hemothorax[8] by implanted on the diaphragm.
3. Rectal bleeding[9] by implanted on rectum
4. Lower GI. Bleeding[10]
5. Delayed diagnosis and was transformed to be lithopedian[11]

Laboratory finding

1. Urine pregnancy test is positive
2. Elevated maternal serum alpha fetoprotein.

Utrasound : Diagnostic tool of choice ; should reveal one or more of the following features.

1. the fetal head is located outside the uterus
2. the fetal body is outside the uterus as is the ectopic placenta
3. Failure to demonstrate a uterine wall between the fetus and the urinary bladder
4. recognition of a close approximation of fetal parts and the maternal abdominal wall
5. atypical sites of gestational sac such as liver[12-14] spleen, appendix[15] ,diaphragm

Radiography should reveal one or more of the following features :

1. absence of a definite uterine shadow around the fetus.
2. maternal intestine shadows intermingling with fetal parts in the anteroposterior view.
3. overlapping of the maternal spine by fetal small parts in the lateral film.

MRI : Magnetic resonance imaging can safely produce images in different planes without use of ionizing radiation. This method seems to be a very sensitive diagnostic tool where facilities exist.

DIFFERENTIAL DIAGNOSIS

1. complications in pregnancy such as abortion
2. gynecological condition such as ovarian cyst
3. non-gynecological [medical or surgical] such as acute appendicitis

Management : summary of management options

1. with dead fetus : delivery by laparotomy, possibly with a delay to reduce complication rates
2. with a live fetus before 24 weeks : delivery by laparotomy
3. with a live fetus after 24 weeks
   - consider a conservative approach after careful counseling possibly undertaken as in-patient.
   - consider laparotomy and delivery if oligohydramnios and/or compressional deformites
4. Laparotomy and delivery :
   - ideally performed jointly with general / vascular surgeon
   - several units of blood available
   - mid-line vertical incision in abdomen
   - incision of sac away from placenta
   - avoid placental manipulation during delivery
   - if blood supply to placenta can be secured, remove placenta completely
   - if blood supply to placenta cannot be secured, ligate cord only [greater post operative morbidity]

CONCLUSIONS

Abdominal pregnancy is rare which is life threatening and interesting conditions. Clinical presentation, physical examination and laboratory findings are non-specific causing pre-operative diagnosis is rarely made. Suggestive

diagnostic abdominal pregnancy are abdominal tenderness, closed uneffaced cervix and palpation of a pelvic mass distinct from the uterus. The initial clinical manifestations are often like that of an ectopic pregnancy. The commonest sign elicted in most series was abdominal tenderness.[16-18] The main complication is sudden haemorrhage which can occur at anytime.

This case report shows a case of abdominal pregnancy at hepatoduodenal ligament which developed clinical GI symptom for 3 weeks. She was not suspected to have ectopic pregnancy, but diagnosis of abdominal pregnancy was made by chance by radiologist from transabdominal ultrasound. Transabdominal ultrasound was successfully used to make the diagnosis preoperatively.

This paper also shows the important role and usefullness of ultrasound in acute abdomen both gynecological and surgical condition. In ectopic pregnancy or abdominal pregnancy, the ultrasound can be of help in the diagnosis of viable or non-viable fetus and complication such as ruptured ectopic pregnancy from intra-abdominal hemorrhage. Nowaday, Ultrasound is widespread in community hospital and provincial hospital which is non-expensive, portable and no radiation risk. Ultrasound training in the diagnosis of acute abdominal condition is recommended.

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