Case report

Survival of cornual (interstitial) pregnancy

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Abstract

We report a case of a singleton cornual (interstitial) pregnancy following spontaneous conception in a primigravida with no risk factors for ectopic pregnancy. She presented at 30 weeks gestation with haemoperitoneum, due to a small rupture on the posterior surface of the cornual pregnancy. At laparotomy, an incision was made in the cornu, the baby was delivered and survived after spending 39 days in a special care baby unit. © 1999 Elsevier Science Ireland Ltd. All rights reserved.

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1. Introduction

Confusion exists about the definitions of angular, interstitial and cornual pregnancies. It is important to distinguish angular pregnancy because of differing prognosis but attempts to separate interstitial from cornual pregnancy are spurious. Angular pregnancy is distinguished by its position medial to the round ligament. It refers to implantation just medial to the uterotubal junction, in the lateral angle of the uterine cavity which displaces the round ligament reflection upward and outward [1]. Pregnancy located in the intramyometrial portion of the tube is known as an interstitial or cornual gestation [2] and causes swelling lateral to the round ligament [1].

In most cases the outcome of angular pregnancy is favourable but interstitial pregnancy will rupture eventually. We report a case of a singleton cornual (interstitial) pregnancy following spontaneous conception, with survival of the infant.

2. Case report

A 26-year old primigravida booked at 11 weeks gestation. There was no significant past medical history. An ultrasound scan (USS) at 20 weeks showed a viable intrauterine pregnancy corresponding to dates. At 30 weeks gestation she developed a 2-day history of intermittent abdominal pains preceded by an episode of vomiting. There was no vaginal bleeding or urinary symptoms, the uterine size was consistent with dates with tenderness over the fundal region. The cardiotocograph (CTG) was satisfactory. The provisional diagnosis was concealed abortion. Haemoglobin (Hb) was 11.8 g% and white cell count \(3\times10^3/\text{l}\). An ultrasound scan reported a singleton fetus with normal growth but oligohydramnios and a mass in the left pelvis which looked like the uterus or a uterine horn; raising the possibility of double uterus with pregnancy in one horn, or an abdominal pregnancy. Vaginal examination confirmed the presence of only one cervix.

Magnetic resonance imaging (MRI) was arranged but in the course of this the patient developed sudden acute abdominal pain and therefore the MRI was terminated.

The MRI (limited T1 weighted acquisition only) shows
the separate uterus with endometrial thickening and the gestation immediately to its right (Fig. 1).

At laparotomy there was haemoperitoneum (approximately 1200 ml) with clots of varying ages, plus fresh blood. The uterus was distorted. The uterine body was enlarged to the size of a 10-week pregnancy and lay slightly to the left. The 30-weeks size fetus and placenta lay in a thin-walled sacculcation off the right cornu continuous with the Fallopian tube and lateral to the insertion of the round ligament. The placenta was thin and covered almost the whole surface of the cornual sacculcation. The haemoperitoneum was due to a 1-cm rupture on the posterior surface of the cornual pregnancy.

A diagonal linear incision was made in the cornu and the baby delivered in a caul. No attempt was made to separate the placenta. A right cornuectomy and salpingectomy was performed with conservation of the right ovary and a double layer closure of the myometrium. The left adnexa appeared normal. The estimated blood loss was 1500 ml. She was transfused with 3 Units of blood.

The female infant’s condition at birth was poor but she was promptly resuscitated (Apgar scores of 1 and 6 at 1 and 5 min, respectively). The baby weighed 1682 g and she spent 39 days on the Special Care Baby Unit.

Pathological examination indicated a cornual ectopic pregnancy. At the point of the 1-cm linear perforation the uterus measured less than 1 mm in thickness and it was covered by placental tissue. Mother and baby recovered uneventfully.

3. Discussion

An interstitial or cornual ectopic gestation comprises 2–5% of all ectopic gestations [3]. Risk factors are similar to other ectopic pregnancies and include previous pelvic infections, Fallopian tube abnormalities, tuboplasty, endometriosis and previous salpingectomy with or without cornual resection, on the same side as the pregnancy [4]. Our patient had no obvious risk factors.

Interstitial pregnancy is usually discovered after rupture with 70% of women presenting in haemorrhagic shock, an incidence 2.5–5 times greater than that found in women with other varieties of ectopic pregnancy [5]. Hysterectomy is often necessary because of the disruption of uterine tissue and the rich vascular supply to this area. Traditional teaching is that rupture of this segment occurs later than ampullary or isthmic tubal gestations because of the increased thickness of the tube when it is surrounded by a relatively thick myometrium; however, some authors [5] have not found this to hold true and it has been stated that most ruptures occur between the 5th and 12th week of gestation, the same as in other forms of ectopic pregnancies [4].

Early diagnosis of interstitial ectopic pregnancy is difficult. The classic triad of abdominal pain, amenorrhoea and abnormal vaginal bleeding occurs in only 40% of patients [3].

Ultrasound examination can be helpful [4] but the classic appearance of an eccentric gestational sac on the cornual segment of the uterus is not specific and may be seen in normal intrauterine pregnancy with concurrent uterine myoma [6] or angular pregnancy [7]. The finding of a normal intrauterine pregnancy on ultrasound is helpful in ruling out ectopic pregnancy but a decidual cast, sometimes seen after the death of the ovum in an ectopic pregnancy, may resemble an intrauterine gestational sac. An interstitial pregnancy may appear to be intrauterine in location, and only careful inspection for an incomplete myometrial mantle around the gestational sac will give a clue as to its true location.

Survival of intrauterine and interstitial infants have previously been reported for twins [8] and more recently for triplets [9]. To our knowledge, ours is the first reported case were a singleton cornual pregnancy following spontaneous conception in a patient with no risk factors for ectopic has led to the delivery of a live infant.

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References