

BICORNUATE UTERUS-A CASE REPORT AND LITERATURE REVIEW

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ABSTRACT

An interesting case of Bicornuate Uterus which was found at Surgery for twisted ovarian cyst in a 28 year old para 3+0 woman.

This anatomical delight is presented because of the dilemma it gives the obstetrician and gynaecologist in the management of infertility. This particular case had caesarian section for her second pregnancy due to pre eclampsia and had ultrasonographic scan done without being detected.

The rarity of this condition also makes it a worthwhile reporting.

KEYWORDS: Bicornuate uterus, infertility, obstetrician and gynaecologist.

INTRODUCTION

The uterus is a hollow pear-shaped organ with thick muscular walls measuring 7.5cm long, 5cm thick situated in the pelvis behind the urinary bladder and in front of the rectum. Slightly flattened anteroposteriorly, it encloses a slit-like cavity where gestation takes place. The upper broad pear-shaped part that encloses the cavity is the corpus or the body and the lower narrow one third that hangs down into the vagina is the cervix¹

During pregnancy, the uterus undergoes an astonishing degree of enlargement. This involves the hypertrophy of its walls, ligaments and peritoneal coverings, as well as the growth of the vessels and nerves associated with it. No less astonishing is the involution of this organ after parturition²

In some of the primitive mammals, fusion of

the Mullerian ducts does not progress cephalad beyond the vagina. Such animals have paired uteri formed by the enlargement of Mullerian ducts cephalad to their entrance into the vagina. In all the higher mammals, fusion of the Mullerian ducts involves the caudal end of the uterus so that it opens into the vagina in the form of an unpaired neck or cervix. Towards the ovary in the cervix there is great variation in the degree of fusion encountered among the different animal groups. In the Sow, the fusion is carried only a short way beyond the cervix to form a typical bicornuate uterus. In the human female, Fusion of the paired Mullerian ducts is complete in the uterine region. As a result the uterus is pear-shaped with a single lumen. In distinction to a bipartite, or bicornuate type, this is the simplex uterus. However, about 0.1-3.2% of women have a uterine abnormality. In case of the bicornuate uterus, it results from partial failure of the Mullerian ducts to fuse. The resultant septum composed of myometrium may extend to the external os or to the internal of the cervical canal. Many women will have an abnormality without ever knowing anything about it especially if there are no effects on the fertility or and the ability to give birth³

CASE PRESENTATION:

A 28-year old para 3+0 (all alive) house-wife presented to Abnira Medical Centre (private clinic) with a two hour history of labour. The past Medical and Obstetric history of this woman showed that she had a caesarean section for the second pregnancy due to pre eclampsia and also had a hysterosalpingogram (HSG) after her first

delivery for reasons she could not explain. She delivered her first and third child per vagina and at home too!

She was examined and found to be in acute pains, febrile to touch (38°C), not pale, anicteric and well hydrated. The pulse rate was 88/min, regular, full volume and non collapsing. There were 1st and 2nd heart sounds only with sinus rhythm. The blood pressure was 120/70mmhg (lying position). Her respiratory rate was 16/min and both lung fields were clear. The abdomen was full suprapubically and very tender with a mobile, tender mass in the right iliac fossa. The liver, spleen and kidneys were not palpably enlarged and all the hernialorifices were intact. Vaginal examination revealed normal vulva and vagina, anteverted and anteflexed uterus with a full right adnexa and pouch of Douglas.

Full blood count showed a relative neutrophilia and urinalysis/urine was essentially normal. An urgent pelvic ultra sonography scanning revealed a normal sized empty uterus with right adnexal cystic mass measuring 20cm by 12cm and a normal left. The pouch of Douglas had about 150mls of fluid.

A diagnosis of a right twisted ovarian cyst to rule out right tubal pregnancy was made and the patient prepared for emergency laparotomy (After obtaining informed consent). At surgery, a right twisted ovarian cyst was found and a bicornuate uterus placed anterior posteriorly tapering into a single cervical body seen. About 160mls of straw coloured fluid was found in the pouch of Douglas. She recuperated satisfactorily and has honoured her subsequent follow up appointments.

DISCUSSION

Among the very few of types of uterine abnormalities, bicornuate uterus is the commonest. Here instead of the uterus being pear shaped, it appears like a heart with a deep indentation running from the top at the fundus deep into the body of the uterus or sometimes right up to the very beginning of the cervix.

When this occurs, the available uterine cavity is very limited and the future foetus will lack adequate space for growth. Instead of a single normal cavity, there are now two smaller cavities^{1,2,5,6}. In some instances such uteruses have these two cavities opening into cervixes and vaginas.

Bicornuate uterus is said to result from the failure of the Mullerian ducts to fuse. Such defects have no clearly known aetiology and are also thought to be due either to abnormal hormonal stimulation in utero or probably to other genetic reasons. This fusion defect (Either failure of fusion or failure of degeneration of the septum) is also responsible for other abnormalities seen associated with the uterus, cervix, vagina and the lower part of the urinary tract^{5,6}.

Most uterine abnormalities are clinically associated with spontaneous abortions, infertility and short pregnancy duration. They do not prevent pregnancy, but they make it more difficult to reach a full term of nine months. There is also an association between bicornuate uterus and miscarriage. Although some studies have shown that 65-68 percent of women with bicornuate uterus have no pregnancy problems at all, experience over the years by Obstetricians have shown an association between abnormal uteruses and miscarriage. Those with full term pregnancies sometimes, because of the abnormally shaped uterine cavity, have their babies settling for breech rather than the normal cephalic position, which may necessitate the option of caesarian section delivery⁵.

The diagnosis of bicornuate uterus can be done by hysterosalpingography, ultrasound, magnetic resonance scan, hysteroscopy or laparoscopy.

This anatomical delight is presented because unlike most cases of abnormal uteruses presenting with either primary or secondary infertility, this was not so. Even the pelvic ultrasound did not pick this abnormality. From her past medical history, also of interest in this case was the position of the uterus at surgery. Instead of the usual shaped structure

positioned from left to right in the pelvis, the two abnormal parts were placed anterior-posterior which ultrasonography might have been responsible for the normal appearance on. She carried three pregnancies to term, although she had caesarean delivery but due to toxæmia of pregnancy. Again this abnormality was not discovered during this surgery (probably because of the emergency nature of the operation). Finally because of all these findings and the rarity of this condition among other uterine abnormalities, we are reporting this case which we believe is a delight to the anatomists but quite often a dilemma to the obstetrician and gynaecologist especially in the management of such cases that present with fertility or pregnancy related problems.

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