

## RECORD OF CASES OF CONCEPTION IN UTERUS BICORNIS BICOLLIS

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Congenital malformation of the uterus results from various degrees of failure of fusion of the Mullerian ducts. The underdevelopment is usually due to arrested growth of the mesoderm which forms musculature round the primitive mesothelial Mullerian tubes.

When the failure of fusion of the Mullerian ducts is complete we get uterus didelphys, two uterine bodies, each with its own cervix and vagina. Such cases often come for sterility, dysmenorrhoea, dyspareunia, and invariably fail to conceive even after treatment. In partial fusion of the two Mullerian ducts, the vagina and the cervix are single whereas the uterine body itself remains bifurcated. Both the halves may be equal in size and capable of conception and labour; or only one of them may be well-developed, the other half remaining as a rudimentary horn. The recto-vaginal septum between the two halves may be a well-developed partition, or it may be only a peritoneal fold.

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The following four authentic cases were under my personal care and are very interesting in as much as they demonstrate the shortcomings of uterus bicornis unicollis, as well as the extent to which it can fulfil the important functions of conception, pregnancy and labour.

*Case No. 1.* Mrs. V., aged 21, pregnant for the third time, with 2½ months' amenorrhoea, admitted for severe pain in the abdomen on 11th December, 1951. First, abortion of 2½ months, 5 years ago; 2nd F.T.N.D.

*General Examination.* T.B. Lungs at right apex. Cough off-and-on. Other systems normal. Urine normal. B.P. 105/65.

Per vaginam, cervix softish. Os closed; uterus deviated to the right side, retroverted, bulky. Left fornix, a cystic mass, size of an orange, was felt. A cleft felt between the mass and the uterus. Suspected ovarian cyst.

*Operated on 12-12-51.* Spinal anaesthesia. On opening the abdomen two uteri were distinctly visible, the left one being larger. Both were congested and a distinct peritoneal fold was visible from the mesentery of the



pelvic colon on to the bladder and the back of the symphysis pubis. The left uterus was incised, and after removing the ovum, stitched up. The tubes were ligatured on both sides because of T.B. lung.

*Recovery.* Uneventful.

Speculum examination showed only one cervix and one vagina (sketch, 1).

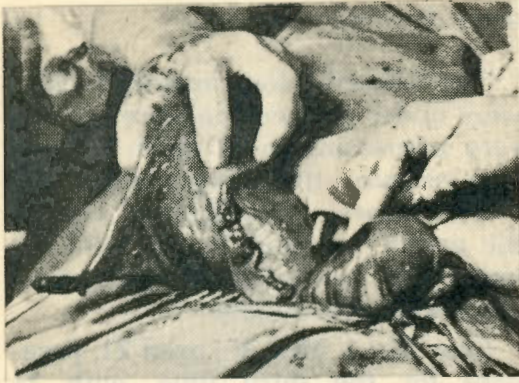


Fig. 1. Conception in double uterus. The caesarean scar is on the posterior aspect.

*Comments.* The thick mesenteric fold between the two uteri appeared to partition the whole pelvic cavity into two exact halves. It was about  $\frac{1}{8}$  of an inch thick, rising to about  $1\frac{1}{2}$  inches from the posterior parietal peritoneum. Such a thick fold was not seen in my other two cases which I had a chance to operate upon.

#### Case No. 2.

Mrs. D., a Hindoo woman, 35 years old, was registered for confinement in her fifth month of pregnancy on 5-9-1951. She was pregnant for the first time after 11 years of married life, and her expected date of delivery was 2-1-1952.

She gave a history of 3 previous abortions. General examination showed that she was of a short stature and was anaemic. Her B. P. and urine were normal throughout the ante-natal period. The measurements of her pelvis were small: Inter-spinous 8.75", Intercristal 9.75", External conjugate 6". Vaginal examination at that time revealed nothing abnormal except that the pelvis was small.

The foetus was presenting by vertex and although its size was not large the head did not engage in the last three weeks of her pregnancy. She came with labour pains on 3-1-1952, and it was found that the head could not be pushed into the pelvic brim. Lower segment caesarean section was done under spinal anesthesia. A female child weighing 4 lbs. had no difficulty in breathing or surviving upto the present day.

After suturing the lower segment uterine incision in two layers, I was struck by the obliquity of the scar although I was certain that the incision I had made was semi-circular and quite transverse. On further scrutiny I discovered for the first time that the uterus was obliquely tilted towards the left; from behind it and from the depth of the pelvis I could pull up another uterus of a size little larger than the normal and quite congested. Only a thin fold of peritoneum passed between the two bodies from the rectum to the bladder (recto-vesical fold). She had uneventful recovery. Speculum examination showed only one cervix.

On 10-9-1953 Mrs. D., came back with enlargement of the abdomen,



having had no period since her last delivery by caesarean section.

The fundal height was about 3 fingers' breadth above the symphysis pubis. Vaginal examination showed single softish cervix and enlarged uterus deviated to the right side. The left uterus could be traced along its left side. Evidently it was a case of pregnancy, now in the other horn.

Her ante-natal period was uneventful and she was admitted with labour pains on 15-1-1954, the foetus presenting by the head, but with an oblique lie.

Since I knew the abnormal contents of her pelvis I kept everything ready to take photographs after opening the abdomen.

This time local novocaine anaesthesia was used, helped later by intravenous pentothal. The presenting surface of the enlarged uterus was opened by a classical incision after packing the surroundings. A female child weighing 3 lbs. 2 ozs. was easily extracted and breathed normally. It showed signs of prematurity but left the hospital after a fortnight in quite a good condition.

The classical incision was closed in three layers. Now on closer inspection it was found that the fallopian tube in the left iliac fossa was really that of the right side and the uterus had undergone a complete 180 degrees rotation towards the left side. This rotation was undone and the left uterine body was lifted up from the depths of the pelvis and from behind the pregnant uterus. The photograph was taken at this stage and reveals no classical scar on the uterus since it is on the posterior surface of the uterus which had pre-

sented itself in front due to complete rotation. Very prominent veins were visible on both the uteri and no thick peritoneal fold was seen between the two bodies. The tubes were ligatured on request of the patient and her relatives. She made an uneventful recovery.

*Comments.* Both the uteri showed capacity to conceive and to carry the pregnancy almost to full term. The pelvis was no doubt contracted but the non-pregnant half of the uterus must also be causing obstruction to the passage of even small babies. The recto-vesical ligament was very poorly developed. The pregnant uterus had undergone 180 degrees rotation without causing any symptoms and was responsible for presenting its posterior surface for classical vertical incision.

#### *Case No. 3.*

Mrs. B., a European woman aged 29 years, came for slight bleeding per vaginam after 3 months of amenorrhoea on 26-2-1953. She gave a history of dysmenorrhoea and of two abortions soon after her marriage 11 years ago (sketch 2).

Hysterosalpingography done later showed two equally grown Mullerian ducts fused at the cervix. Subsequently she had two successful full-term normal deliveries, a boy of 8 years and a girl of 6 years. Her periods before the 3 months of amenorrhoea were heavy, lasting for 8 to 9 days every month.

On abdominal palpation the uterus was felt two fingers breadth above the symphysis pubis.

Vaginal examination showed only one cervix which was soft and was

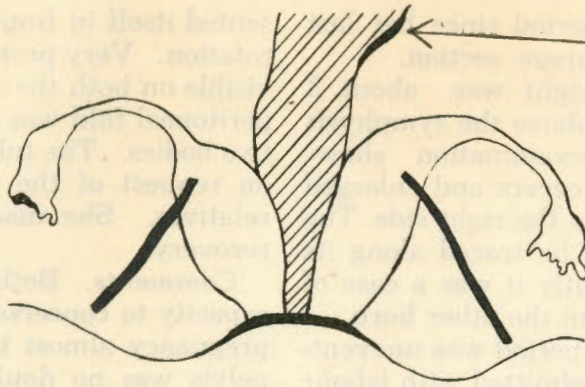


Fig. 2.



Fig. 3.

closed. Enlarged uterus could be traced on the left side and the body on the right side of it was in continuation with it and was comparatively smaller, though larger than a normal uterus.

Speculum examination confirmed the single cervix and the bluish discoloration.

In spite of usual palliative and sedative treatment she aborted in 12 days and expelled an ovum which was kept for my examination. Vaginal examination now showed that the cervix admitted one finger easily and membranes could be felt through it. Incomplete abortion was the evident diagnosis.

A digital curettage was performed and it was noticed that the finger could go into the cavity on the left and also could be redirected into the cavity on the right. The cavity on

the left was larger and contained the remains of the products of conception. Intra-uterine douche was given and Inj. Neogynergen arrested the bleeding. The blood-stained discharge continued for 20 days during which period she received occasional vaginal douches and pituitrin injections.

*Comments.* Because of the salpingograph taken a few years ago the diagnosis was certain and dysmenorrhoea, menorrhagia and repeated abortions were easily accounted for. It was a novel experience for me to introduce my finger into two cavities alternately after going through a single cervix. She had two full-term normal deliveries.

#### Case No. 4.

Mrs. N. a Hindoo woman aged 25 years, was admitted on 9-3-1954 for



pain in the lower abdomen and dysmenorrhoea of 4 months' duration.

*Previous history.* She started her periods at the age of fourteen. The periods were regular and moderate 3/29. She was married 4 years ago and had a full-term breech delivery 3 years ago. The female child is living. Four months after delivery she began to menstruate on alternate months. In February '53 she missed her period and in June '53 she consulted a doctor who diagnosed a pelvic tumour. The rat-test was done and found to be positive. Amenorrhoea continued till September '53 without any signs of pregnancy. In September she went to her doctor for fever and pain in the left leg and he gave her some medicine. Next day she had profuse bleeding which lasted for 8 days. From the next month she had regular periods 3 to 4/28 to 30 but always accompanied by severe pain. She was admitted on 10th March 1954. L.M.P. was 8 days previous.

Vaginal examination revealed cervix directed downwards and forwards. Uterus was small and deviated to the right. On the left side of the uterus was felt a tender firm mass, the size of an orange. Subserous fibroid. She was operated on 11-3-1954 under spinal anaesthesia.

Uterus with enlarged rudimentary

horn and haematosalpinx on the left side was plainly visible. There was no recto-vesical peritoneal fold. The size of the rudimentary horn was equal to that of the uterus. Its junction was clamped and it was excised. On incising it, a brownish dirty macerated material with foetal bones was discovered. After compressing the isthmus of the uterus and the left fallopian tube, saline was injected into the body to see whether it would leak through the connecting stump which was released from the previously applied clamp. No water leaked out showing that there was either no connection between the main uterine body and the accessory horn, or it had become obliterated.

The stump was ligatured and the appendix was removed. She made an uneventful recovery.

*Comment.* She had one full-term normal delivery. Taking for granted that there was no connection between the well-developed accessory horn and the main uterus, the pregnancy in the horn must have occurred by external wandering of the fertilised ovum or the sperm. The accessory horn responded well by hypertrophy but a missed abortion took place, there being no outlet, and the well-formed foetus with bones underwent mummification.