INVERSION OF UTERUS

(Three Case Reports)

by

H. N. SHAH*, M.D.,

D. S. SHAH,** M.D.

and

SURENDRA D. PATEL, *** M.B.B.S., D.G.O.

Introduction

Inversion of the uterus denotes an invagination of the fundus of the uterus or in other words turning inside out of the uterus. Inversion of the uterus is one of the serious complications of obstetrics. Fortunately it is rare. It is much more frequent during puerperium but it is not unusual to occur during extrusion of a submucous fibroid attached to the fundus. In contrast to puerperal, chronic inversion of the uterus is frequently found in older age group. Das (1940) has reported that the average incidence in Great Britain was 1 in 23,127, in American Hospitals 1 in 23127 and in Indian Hospitals 1 in 1853. The incidence in Civil Hospital, is 1 in 3960 in 1971. The object of the present paper is to report three cases of chronic inversion of the uterus seen at the Civil Hospital, Ahmedabad, during the year 1972.

Case 1: Mrs. K.K., Aged 45 years was admitted in Civil Hospital, Ahmedabad on 24th December, 1971, with the complaints of bleeding per vagina since one month. Backache and weakness since last 20 days.

Obsteric History: Seven full term normal deliveries, last delivery was 8 years back.

Menstrual History: The menarche was at the age of 12 years and her menstrual cycles were regular but menstrual loss was heavy since last one year and since one month she was bleeding continuously. The bleeding was not associated with pain or any other symptoms, except backache and weakness.

Examination: She was fairly built and poorly nourished woman, looking anaemic. Her pulse was 100/mt, blood pressure was 120/90 mm of Hg. Temperature was normal and her cardiovascular and respiratory systems were normal. There was no positive finding on abdominal examination.

Speculum Examination: A brownish black coloured growth was seen upto the introitus filling the whole vagina. Appearance of growth was that of products of conception. There was a foul smelling discharge and there was bleeding from the growth.

Vaginum Examination: The growth was seen to be arising from the uterine cavity. Cervical ring was felt separately. Uterus was not felt in any of the fornices. Provisional diagnosis of fundal fibroid undergoing necrotic degeneration was made.

Examination under anaesthesia was made which revealed a thick penduncualted mass 2″ x 2″ attached at the fundus of the uterus. The attached portion of the pedicle was at the level of cervical ring and finger could be passed all around the cervical ring. The uterine fundus could not be felt in the pelvis. The depression was easily palpable. A sound was passed in the

* *Sr. Professor, and Head of the Department.*

** *Jr. Lecturer.*

*** *Research Fellow.*

Department of Obstetrics & Gynaecology, Civil Hospital, and B. J. Medical College, Ahmedabad 16.

Received for publication on 10-7-73.

cervical ring all round the mass, but it could not go more than ¾" on any side.

Examination: A definite depression was felt above the mass and the uterus was not felt in the pelvis.

Investigation: Blood—Hb—8 gm%; W.B.C.—9000 Cmm. D.C.—P 70%, L 24%, E 1%, M 2%. Urine—Normal. Screening of chest—Normal. Blood urea—25 mg/100 cc. Postprandial blood sugar—120 mg%. Blood group—'B'—Rh positive.

Treatment: Her anaemia was corrected by anti-anaemic drugs and high protein diet. As there was local sepsis, local cleaning was done daily and parts were covered with glycerine-acriflavin. Systemic antibiotic was given daily to combat infection. As the patient was multiparous and nearing menopause, total abdominal hysterectomy was done. Supporting therapy was one bottle of blood and three bottles of glucose saline. On opening the abdomen the dome of the fundus was not seen, but was dragged into the uterine cavity. The diagnosis of incomplete inversion of first degree was confirmed. Mass with uterus was sent for histopathological examination. Her postoperative course was smooth.

Section Report

Microscopic Findings: The fundus of the uterus was dragged in the uterine cavity from which a fibroid polyp was arising. Polyp had pedicle and lower part of the polyp was black and necrosed with a size of 6" x 4" and firm in consistency.

Histological Examination: The structure was that of a fibroid polyp. Endometrium was in proliferative phase. Myometrium was normal and cervix showed chronic cervicitis. Ovary showed simple serous cyst.

Case 2: Mrs. S.S., aged 40 yrs. was admitted in Civil Hospital, Ahmedabad on 17th November 1972, in emergency with complaints of something coming out per vaginam since two hours and bleeding per vaginam since then. The same mass was occasionally coming out on straining. She had no other complaints.

Obstetric History: Three full term normal deliveries, last delivery was 10 years back. She had one abortion at three months 13 years back.

Menstrual History: Menarchae was at the age of 15 years. Her menstrual cycles were regular and her last cycle was one month and 10 days back.

Examination: She was fairly built and poorly nourished woman. Her pulse, B.P. & temp. was within normal limit. Clinically, Cardiovascular and respiratory systems were normal.

Abdominal examination did not reveal any positive findings. A red gangrenous looking mass about 3½" x 2" size was seen outside the introitus.

Vaginal Examination: There was no cervical rim. The mass which was continuous above with uterine cavity. Bleeding was profuse from the mass on touching. The dome of the fundus was not palpable.

The diagnosis of chronic complete inversion of the uterus was made. As the patient was bleeding profusely the mass outside the introitus was thought to be inverted fundus. Speculum examination was not done.

Rectal Examination: Nodular feeling in the position of cervix was felt. Above that the pelvis was empty with tenderness in the fornices.

Investigations: Blood—Hb—10 gms% W.B.C. 8000/Cmm. D.C. P. 65%, L 29%, E 1%, M 2%. Urine—Normal.

Postprandial blood sugar—126 mgm%. Blood urea—20 mgm%. Blood group—'B' Rh positive.

X-Ray Chest—showed old Koch's lesion in right apical and infraclavicular regions with thickening of pleura in Rt. infraclauricular region. There were multiple calcified spots in the right lung. Both costophrenic angles were normal and heart was normal.

Treatment

As patient was admitted in emergency, general supportive line of treatment with antibiotics was given. Locally glycerine acriflavine was applied. The whole mass was reduced and went into the vagina after 72 hours.

As the patient was multiparous and nearing menopause abdominal total hysterectomy was done on 27-11-1972. On opening there was complete inversion of the uterus. Fundus of the uterus was dragged into vagina and adnexae were dragged in the depression caused by the inversion. The diagnosis was confirmed. Her postoperative period was smooth except she had slight wound gapping which was treated by daily dressing with antiseptic cream. She was discharged on 19-12-1972.

Section Report

Macroscopically the fundus of the uterus was dragged in the uterine cavity from which a fibroid polyp was arising. Polyp had a very short pedicle involving major portion of dome of fun-

dus. The polyp was of 9 x 5½ x 2 Cms size and was red and gangrenous, cut surface showed typical whorled pattern of myoma and cystic cavity containing chocolate coloured fluid.

Microscopically leiomyoma was confirmed, glands are in proliferative phase. Fibroid shows one cystic cavity 1 cm. in diameter containing chocolate coloured fluid.

Case 3: Mrs. B.B., primipara, aged 19 years was admitted in emergency to the Civil Hospital, Ahmedabad on 29th February, 1972, with complaints of something coming out per vaginam since last twelve days after three days of a home delivery. For this complaint she was admitted in a village hospital and replacement of the part was made but failed. Since then she was bleeding continuously.

Examination: The patient's general condition was fairly good except that she was pale and anaemic. Tongue and conjunctivae and nails were pale. She was fairly built but was poorly nourished. Her pulse was 110 per minute and blood pressure was 120/80 mm of Hg.

Abdominal Examination: Did not reveal any positive findings.

Speculum Examination: A smooth bluish mass was seen filling the whole vagina. Bleeding was more and cervix was not seen.

Vaginal Examination: The dome of the fundus was not palpable and fornics were clear. On examination a cup shaped depression in the region of fundus confirmed the diagnosis of incomplete second degree inversion of the uterus.

Investigations: Blood—Hb 8 gm%. Urine—Normal. Screening of chest—Normal. Blood group—'A' Rh positive.

Treatment

The patient was put on anti-anaemic therapy and antibiotic therapy and correction of the inversion was done by Haultain's operation subsequently. Postoperative period was uneventful. Patient was discharged on 26th April, 1972.

Discussion

Inversion of the uterus may be puerperal or non-puerperal. Each of these varieties may be acute or chronic. The distinction between the acute and the chronic in puerperal variety is determined by the interval between the time of occurrence of the accident and the commencement of the treatment, which for acute is limited to 30 days. There are three degrees of inversion. The first degree is that in which the fundus is turning itself inside out, but does not herniate through the internal os. In the second degree, the fundus passes through the cervix, but lies within the vagina and in the third degree the entire uterus is turned inside out and hangs out side the vulva, taking much of the vagina with it. The first two cases presented here were of second degree inversion of the uterus, and the third case was of third degree.

Various etiological factors mentioned by different workers include congenital malformation of the uterus, localised atony of the uterus, in association with sudden rise in intra-abdominal pressure, asymmetrical uterine contraction, mismanagement of third stage of labour, manual removal of adherent placenta and lastly fundal attachment of placenta. According to Donald (1964) in about 4/5th of cases of total inversions, the responsible factor is mismanagement of the third stage of labour.

Thinning of the uterine walls, by gradual development within it of the tumours like choriocarcinoma and fibroid polyp account for some cases of non-puerperal inversion.

Management

The treatment of chronic inversion depends upon the age of the patient, parity, presence of infection, degree of inversion and the associated tumour, if present. In young patients desirous of children, surgical correction can be done either by the vaginal approach or by the abdominal route. In the present series, the patients with fibromyoma uterus were of menopausal age, so total abdominal hysterectomy was done, while in the third case

the patient was a primipara, so Haultain's operation was done.

Summary

(1) Three cases of puerperal and non-puerperal inversions of uterus are reported.

(2) Diagnosis was misleading on clinical examination in non-puerperal cases. Examination under anaesthesia and rectal examination are useful in making a correct diagnosis.

(3) In the puerperal patient, Haultain's operation was performed as patient was young and having only one child. Abdominal total hysterectomy was the method of choice in non-puerperal cases, as the patients were of menopausal age.

References

1. Das, P.: Journal Obst. & Gynec. Brit. Emp., 47: 525, 1940.
2. Donald, I.: Practical Obstetric Problem, Edn., 3, 1964, p. 609.