HYDROMETRO COLPOS*

by

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Hydrometrocolpos or simple mucocolpos is an unusal clinical manifestation of imperforate hymen or vaginal obstruction occurring during infancy. It has been too rare a detectable complication to be even mentioned in the standard text books of gynaecology. In most of the infants born with imperforate hymen, symptoms are deferred till puberty when the collected menstrual blood above the obstruction produces haematocolpos.

CASE REPORT

R, aged 45 days, female infant was brought to the out patients clinic of Government General Hospital, Gulbarga, on 20th May 1970, for scanty, painful, infrequent micturition for 15 days and distension of abdomen with retention of urine for 3 days. Parents had noticed that the infant had been crying during act of micturition for the last 15 days. Every time she cried or strained only few drops of urine could escape and there had not been free flow of urine at any time during these 15 days. She had been unable to pass even these few drops of urine since 3 days before admission. Before they could come to the hospital for treatment, the parents had already consulted a few practitioners who treated the case on conservative lines by catheterisation and antibiotics. A plain X-ray of the abdomen taken outside the hospital revealed a soft tissue tumour in the lower abdomen. The parents were told that this may require abdominal surgery. The infant was admitted.

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Examination

On examination the infant looked ill and was crying incessantly. She was slightly dehydrated. Her temperature and pulse were normal. She was not anaemic. On abdominal examination there was an intra-abdominal smooth swelling which was arising from the pelvis and extending up to the level of the umbilicus as shown in photograph No. 1. The margins of the swelling were smooth and it was dull on percussion.

On seperating the labia, a whitish bulging membrane was visualised. The membrane looked stretched and would become more prominent when the child cried. This was provisionally diagnosed as imperforate hymen as shown in photograph II.

Treatment

That this swelling was not distended bladder was confirmed by catheterisation which did not reduce the abdominal swelling.

Under ethyl chloride and open ether, a lumbar puncture needle No. 22 was introduced through the bulging membrane. Thick viscid, milky fluid could be aspirated easily which confirmed the diagnoses of hydrometrocolpos due to imperforate hymen. A small cut was made over the most distended part of the membrane with a small knife and the opening so made was dilated with the help of a small haemostat. About 400 ml. of viscid mucoid fluid was drained and the abdominal tumour disappeared simultaneously. The rest of the hymenal membrane was excised. A small rubber catheter was left in the newly created introitus. The catheter came out by itself after 6 days. Triple sulfa cream application was done regularly, to avoid infection. The infant was discharged on 5th June 1970 on request. The parents were advised to come back after 3 months for check up. As they did not turn up for

check up it is presumed that the child had no more complaints.

Discussion

Though it is rare to come across cases of hydrometro colpos it is not unknown in medical literature. About 50 cases were collected by Spencer (1962) from the world literature and to which he added three cases of his own. Thus a total of 62 cases have been reported till 1962. Recently Rajkumar (1970) has reported one more case.

There are only two factors which are responsible for the production of hydrometrocolpos. They are—

(1) Excessive secretions of mucus glands of the endometrium of the uterus and glands of the cervix due to overstimulation caused by maternal hormones.

(2) Vaginal or cervical obstruction which leads to accumulation of this excessive fluid above the level of obstruction and dilatation of vagina and uterus respectively.

Invariably the abdominal swelling is the only symptom. Other symptoms are due to pressure of the abdominal swelling on the adjoining structures, as shown schematically in Table I.

It is interesting to note that only a small number of cases of imperforate hymen manifest the symptoms in early neonatal life, while in the majority of cases the manifestations are deferred till puberty. This could be explained on the assumption that, among the two factors operating simultaneously in the production of hydrometrocolpos the role played by the maternal hormones and subsequent stimulation of the uterine and cervical mucus glands is more important and significant than the obstruction at a particular level. Different individuals vary in their response to such stimulation and that is why a few would develope the symptoms in early neonatal life while the others remain asymptomatic.

Usually there is no difficulty in diagnosis if the condition is kept in mind. A gentle separation of the labia will reveal the bulging membrane. The diagnosis is

TABLE I

Schematic representation of aetiology, Pathology, symptoms and possible complications in hydrometrocolpos.

Operating Factors	I Obstruction in Genital tract.	III Excess of and stimulation by maternal hormones.
	Retention of fluid in the vagina anduterus.	
	Swelling in the suprapubic region.	
Symptoms		
Presents as such.	Pressure on urethra and bladder.	Pressure on rectum.
	1. Difficulty in passing urine.	1. Constipation
	2. Retention of urine	2. Intestinal obstruction.
	3. Symptoms of pyelitis.	3. Respiratory embarrasment as the intestines are pushed up.

Pressure on inf vena cava
1. oedema of legs.

confirmed and level of obstruction is determined by simply introducing a needle from below to aspirate the milky white fluid with simultaneous reduction in the abdominal swelling. The diagnosis can be substantiated by simultaneous introduction of a dilute radio opaque solution through the same needle and taking a lateral skiagram of the pelvis. The enormously dilated vagina and uterus will thus be outlined.

A few conditions should be kept in mind and should not be confused with hydrometrocolpos. These are obstructed bladder, ovarian cyst, retroperitoneal tumour, urachal cyst, hydronephrosis or Wilms tumour.

The diagnosis may become really difficult when the level of obstruction is higher up in the vagina. In this type there is no bulging membrane at the introitus, but the normal vaginal orifice may be retracted upwards by the enlarging upper vagina. Here the diagnosis is established only at laparotomy.

Treatment

As in the present case where a bulging membrane was easily accessible from below a simple incision of the imperforate membrane was carried out with a knife and the opening dilated with haemostat. This can be followed by excision of membrane. A drainage tube is kept in for several weeks till re-epithelialisation takes place to avoid closure of the newly created introitus.

Obstructive lesions higher up in the female genital tract are less accessible by parineal approach. A combined abdomino-perineal approach may be necessary as suggested by Clifford *et al.* Wallace *et al* did not find it possible to maintain the perineal drainage without gross scarring and advise excision of distended uterus and vagina in toto leaving behind the tubes and ovaries.

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See Figs. on Art Paper VIII