From the articles reviewed it is clear that vulval breasts are capable of behaving in the same way as normally situated breasts. They respond to hormonal influences at puberty, in the menstrual cycle, and during pregnancy and lactation; a milky discharge was reported by Hartung (1872) and Bell (1926). Complications common to normal breasts may also be encountered, such as abscess (McGee, 1925-6) and milk-cyst formation (Bergner, 1934). Neoplastic change, both benign and malignant, may supervene. Fibroadenoma has been described by Friedel (1932), Fisher (1947), and Siegler and Gordon (1951), and adenocarcinoma by Greene (1936) and Hendrix and Behrman (1956).

While vulval breasts serve no useful function in man they are a potent source of disease. Therefore, when discovered they should be promptly removed.

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Uterus Presenting in an Inguinal Hernia of a Male Subject

A great variety of organs have been found in indirect inguinal hernial sacs. The following case is worth reporting because of the presence of a fully formed uterus complete with fallopian tubes in such a situation in a subject to all purposes a male.

CASE REPORT

The patient, aged 25, unmarried, was admitted to the Lala Lajpat Rai Hospital on December 21, 1957, with the pre-operative diagnosis of a left indirect inguinal hernia and non-descent of the right testis. No doubt was cast on the sex of the patient. On the left side there was a testicle, which could, however, be reduced along with the contents of the sac into the abdominal cavity. It was noticed that a firm pear-shaped object descended with the hernia at times. Needless to say, the true nature of this object was discovered only at operation. The scrotum was fully developed but was empty on the right side.

At operation on January 13, 1958, the inguinal canal was opened through a left ilio-inguinal crease incision. The sac was found to surround the entire testis as in a completely patent processus vaginalis but with the difference that the testis and cord were lying free in the sac and reduced easily into the abdominal cavity. The pear-shaped object noticed clinically was soon encountered, and to our surprise was found to be a well-developed uterus complete with fallopian tubes. This discovery brought us to the question of the

other gonad and of course to the sex of the patient. Slight traction on the last two objects soon produced the other gonad, which resembled the first. The relationship of the uterus with the two gonads resembled that of a uterus with its two ovaries, except that all three possessed long mesenteries which enabled them to descend into an inguino-scrotal hernia. No other gonads were found. On closer scrutiny the gonads were found to be the size of normal testes but possessing neither epididymis nor vas deferens. There was a well-developed vascular pedicle. The uterus had a well-developed body and fundus but the cervical portion was practically absent. The fallopian tubes were of normal length and calibre and had well-developed fimbriated ends. There was a long mesentery.

Rectal examination revealed a normal prostate gland, but one could not be sure about the seminal vesicles.

A piece of tissue was taken for histological examination from one of the glands. The inguinal canal was closed after excising the sac and repositioning the contents into the abdomen. It was decided not to remove the uterus. It was not possible to retain the left testicle in the scrotum because this would have had to be done at the cost of a weak inguinal mechanism. The slight risk of retained testes was overlooked—one being intra-abdominal and the other intermittently so.

The patient made an uneventful recovery with sound healing of the hernial repair. The histological report was as follows: "One small piece received whole has been sectioned. The ovoid piece of tissue consists of a collection of seminiferous tubules. These tubules are lined by one or two layers of cuboidal cells and not showing evidence of spermatogenesis. The interstitial tissue shows a few collections of Leydig cells. No ovarian tissue can be made out. Diagnosis: hypoplastic testes."

COMMENT

Further inquiry showed the patient to be a potent male with a good ejaculate. In this connexion it might be useful to say something about the differentiation of sexes. With the recent advances in the study of sex chromatin the true determination of sex is made by studying the nuclear chromatin of epidermal cells.¹ The sex of a foetus can therefore be determined even before the differentiation of the gonads²: castrated foetus tends to develop on the female lines irrespective of its genetic structure. It is the differentiation of the testes that keeps these basic traits in check and superimposes male characters. Then, again, it is common to see vestigial remnants of the Müllerian system in the male, but they never proceed to such a degree of differentiation. Various types of male pseudohermaphroditism may be explained on the basis of the time of onset and the degree of such testicular influences. A nuclear chromatin study was done on our patient. Tissue from the epithelium of the cheek was studied (Dr. K. C. Samuel): "14% of the squamous epithelial cell nuclei show presence of sex chromatin mass and therefore the individual has male character."

In the light of the above it is justifiable to consider the case to be one of "uterus presenting in an inguinal hernia of a male."

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