ICTHYOSIS UTERI

by

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Icthyosis uteri is a pathological condition of the uterus, denoting extensive squamous metaplasia of the endometrium. The first case of this disease, resulting from intra-uterine application of caustics, was reported by Zeller in 1885. The search of Indian literature revealed another case, reported by Wahi and Chandra in 1953. Following this, there has been a long hiatus to date. The paucity of published reports in Indian literature obviously emphasises the rarity of this condition. In this context, we propose to describe a case recorded recently in our surgical file.

The purpose of this paper is to enlighten various view points regarding etiopathogenesis of the metaplastic epithelium, in terms of our own observed microscopic findings.

CASE REPORT

Mrs. R. K., aged 35 years, was admitted in the gynaecological ward, S. N. Hospital, Agra, on 30-12-67 with the complaints of severe bleeding per vaginam for 4 months. The obstetric history revealed that she had 4 full-term normal deliveries and the last child was born 10 years ago. No history of abortion. The menstrual history revealed increasing menorrhagia for last 4 months. The family and the past history revealed nothing contributary.

On general examination the patient was a young woman of average build. She was anaemic. Her blood pressure was 110/70 mm. of Hg. On systemic examination, the heart and lungs were found normal. The liver and spleen were not palpable. No lymph node enlargement was found. Per abdomen, a suprapubic lump extending two inches above the pubic symphysis, firm to feel, was found. The lump had restricted mobility. Speculum examination revealed a polyp lying in the vagina with irregular surface and slight infection. Per vaginam, a friable polyp was found attached to the right side of the uterus. On further manipulation the pedicle gave way. The provisional clinical diagnosis was multiple fibroids. The patient was operated on 9-1-1968. The uterus was found to be of normal size and the mass on the right side of the pelvis was an ovarian lump adherent to the right side of the uterus. Panhystrectomy was done and the specimen was examined pathologically.

PATHOLOGICAL FINDINGS

On gross examinations the resected specimen of uterus measured 8x6x4 cm. The outer surface was greyish white and smooth. On cutting, the myometrial thickness varied from 1.6 to 1.7 cm. The endometrium measured 0.1 to 0.2 cm. in thickness and revealed a polypoid mass arising from it. The mass measured 2x1.5x1 cm. The cut surface revealed greyish white appearance. The cervix measured 3.5x 1.5x1 cm. The ectocervix was lined by greyish mucosa and endocervix by trabeculated mucosa. Multiple sections from the uterus were made.

These microsections revealed identiacl appearance. The section revealed surface squamous epithelium completely replacing the endometrial lining epithelium (Fig. 1). The juxtraepithelial zone

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Received for publication on 9-10-1970.

revealed diffuse collection of chronic inflammatory cells chiefly lymphocytes and plasma cells (Fig. 2). The tubular endometrial glands were found interspersed with these inflammatory cells. The myometrium showed muscle bundles cut in various directions. The polyp comprised of endometrial glands. The histologic diagnosis was Icthyosis uteri with endometrial polyp.

Discussion

The presence of squamous epithelium within the gland-like endometrial cavity, is a characteristic feature of Icthyosis uteri. If this metaplastic epithelium has any real importance, one would presume it to be a precurssor of squamous carcinoma. Though cases of squamous carcinoma are known to occur, the statistical relationship of metaplastic epithelium with carcinoma has not yet been borne out. The subject entertains a well controlled follow-up study.

The histogenesis of squamous epithelium in uterine cavity is controversial. Fluhmann (1953) held the view that squamous epithelium from the cervix grows in over denuded and recently sloughed glandular epithelium. The concept does not explain adequately the presence of squamous epithelium high in the endometrial cavity as seen in Icthyosis uteri.

The next theory concerns the derivation of squamous epithelium from embryonal mesodermal rest. This concept is highly improbable because during repeated menstruation and pregnancy the embryonic cell rests are likely to be shed off.

The third hypothesis regards squamous epithelium as originating from an indirect metaplasia of the so-called "basal cells" of the endometrium. The latter are reputedly present as islands of cells beneath the columnar epithelium and in response to certain stimuli they will form either a columnar or a squamous epithelial lining. This theory is most accepted.

There is lot of speculation about the stimulating factors of squamous metaplasia. These include chronic infections, trauma and vitamin A deficiency. Pyometra, resulting as a complication of endometrial curretage, cauterisation, conisation, purpureal sepsis or uterine polyps, is the commonest cause of this disease. In the reported case, the microscopic evidence of chronic endometritis supports this contention.

Summary

A case of Icthyosis uteri is presented. The chronic infection is considered as the most probable cause of squamous metaplasia. The concept of origin of squamous epithelium from "basal cells" is considered most tenable.

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See Figs. on Art Paper III