



MICROINVASIVE SQUAMOUS CELL CARCINOMA OF CERVIX ASSOCIATED WITH ICHTHYOSIS UTERI- A CASE REPORT AND REVIEW OF LITERATURE

Pathology

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ABSTRACT

Ichthyosis uteri is a benign rare condition in which entire surface of the endometrium is replaced by stratified squamous epithelium. We hereby report a case of microinvasive squamous cell carcinoma of the cervix associated with ichthyosis uteri showing carcinoma insitu changes and focal microinvasion into the myometrium in a 60 years old lady who presented with abdominal pain, vaginal bleeding and hydrometra.

KEYWORDS

Ichthyosis uteri, Microinvasive squamous cell carcinoma, Hydrometra, Carcinoma cervix

INTRODUCTION:

Ichthyosis uteri is a rare condition in which entire endometrial surface is replaced by stratified squamous epithelium^[1]. Though it is a benign condition it may be associated with dysplastic changes and invasion.

Case Report:

A 60 year old female presented with complaints of vaginal bleeding for 2 months and abdominal pain for 1 year duration. She was para 3 live 3 attained menopause 15 years back. There was no history of tuberculosis and other comorbid conditions.

Per vaginal examination showed inverted and drawn up cervix and anteverted uterus.

PAP smear was done as a part of routine screening and showed Atypical squamous cells of undetermined significance (ASC-US)

Ultrasonography revealed bulky uterus with distended endometrial cavity with hypoechoic fluid collection.

MRI revealed T2 hyperintense lesion in the endometrial cavity, no focal mass lesion in the uterus. All other organs appeared normal. Based on the radiological findings diagnosis of hydrometra was made.

Endometrial cavity was drained by cervical dilatation, cervix was flushed with vaginal vault and not visualized and hence biopsy could not be taken.

Patient was taken up for surgery under spinal anaesthesia. Total abdominal hysterectomy with bilateral salpingo oophorectomy with bilateral pelvic lymphnode dissection was done. Intraoperatively uterus was found to be normal in size and both ovaries were atrophic. Uterus with cervix both ovaries and tubes along with 2cm vaginal cuff was delivered out and vault closed. Cut section of the uterus showed irregular endometrial surface from the fundus extending upto two-third of the endometrium with no myometrial involvement. Oncology call over was given then case was taken over by surgical oncologist in view of suspicion of endometrial carcinoma and bilateral pelvic node dissection was done. After achieving perfect hemostasis abdomen was closed in layers. The specimen was sent for histopathological examination.

Gross Picture

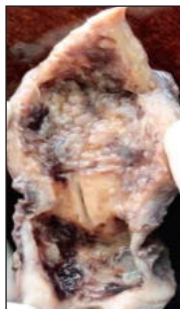


Figure 1: dilated Endometrial Cavity With Irregular Nodules In The

Surface Of Endometrium And Constriction Seen At Lower Uterine Segment

Macroscopically uterus with cervix measured 6x3x1cm. Endometrial cavity appeared dilated with small multiple nodules of varying size 0.2-0.7cm. The cervical canal appeared dilated and there was narrowing in the lower uterine segment close to endocervix.

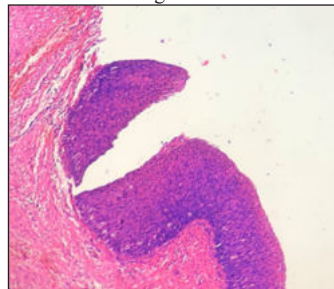


Figure 2: Section From The Endometrium Showing Dysplastic Changes. H And E (10x)

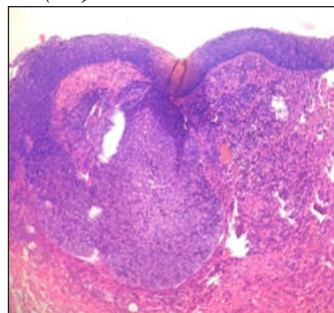


Figure 2: Section Showed Focal Myometrial Invasion. H And E (10x)

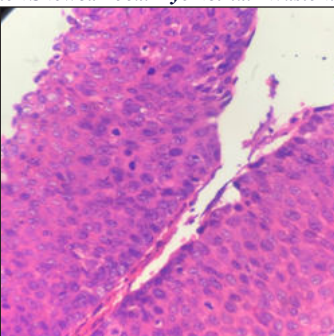


Figure 3 : Section From The Cervix Showing Carcinoma Insitu Changes. H And E (40x)

Microscopically there was complete replacement of endometrial lining and glands by stratified squamous epithelium. There was severe dysplasia with carcinoma insitu changes and focal microinvasion <6mm into the underlying superficial myometrium.

Section from the lower uterine segment and endocervix showed complete replacement of the endocervical epithelium and the glands with stratified squamous epithelium showing carcinoma insitu changes.

Multiple sections from the entire ectocervix showed squamous epithelial lining with carcinoma insitu changes and focal microinvasion <5mm vertically and <7mm horizontally in the underlying stroma. Section from the tubes showed no evidence of invasion. Section from the pelvic nodes showed reactive adenitis. There was no lymphovascular invasion. Based on the above histopathological findings a final diagnosis of microinvasive squamous cell carcinoma of cervix associated with ichthyosis uteri was rendered.

Discussion:

Endometrial metaplasia is divided into many types- squamous, mucinous, tubal, clear cell, eosinophilic, hobnail. Squamous metaplasia is the most common type. Squamous metaplasia is commonly seen in endometrioid adenocarcinoma and endometrial hyperplasia⁴. Squamous metaplasia is of two types- typical and morular⁷. Typical metaplasia is characterized by sheets of cells showing squamous differentiation. When this typical squamous metaplasia involves the entire surface of endometrium it is known as ichthyosis uteri.

The term ichthyosis uteri was first coined by Zeller in 1985 in which entire surface of endometrium is replaced by stratified squamous epithelium followed by iatrogenically introduced substances like formalin or iodine.¹ This condition also develops secondary to chronic inflammation and longstanding cervical obstruction. Similar changes have also been seen in association with tuberculous endometritis, puerperal endometritis and endometrial polyps.¹⁰

Although ichthyosis uteri is a benign condition varying degrees of dysplastic changes in the endometrium had been reported.^{2,3} A case of squamous cell carcinoma of endometrium with extensive ichthyosis uteri had been reported, in which cervix had not showed any abnormalities both macroscopically and microscopically.⁸ Bagga PK et al reported a case of Primary endometrial squamous cell carcinoma with extensive squamous metaplasia and dysplasia.⁵ The occurrence of ichthyosis uteri associated with endometrial adenocarcinoma, though rare has been reported.^{3,7} Murhekar reported a case of low grade squamous cell carcinoma of endometrium developing in pre-existing ichthyosis uteri with dysplasia.¹¹

In the present case ectocervical epithelium showed squamous epithelial lining with carcinoma in situ changes and focal microinvasion <5mm vertically and <7mm horizontally into the underlying stroma. The endometrial surface showed complete replacement of endometrial lining and glands with dysplastic squamous epithelium and focal invasion into the underlying superficial myometrium.

The mechanism of involvement was not clearly known, but carcinoma insitu changes of cervix suggested the possibility of long standing cervical obstruction with irritation with hydrometra resulted in squamous metaplasia of endometrium.

Even though it is a benign condition ichthyosis uteri has been associated with various malignancies.^{5,6} Pins reported a similar case of cervical carcinoma in situ changes with intraepithelial extension to the upper genital tract.⁶

In 1994, FIGO defined microinvasive squamous cell carcinoma of the uterine cervix as a microscopic lesion that invaded below the basement membrane to a maximum depth of 5mm and with an horizontal spread not exceeding 7mm.⁹ The incidence of microinvasive carcinoma is steadily increasing affecting women of age group 40-50 years.⁹ Stage Ia1 is defined as tumor invasion into the underlying stroma of <5mm.⁹

Squamous cell carcinoma in the endometrium is a rare condition. To diagnose as Primary Squamous cell carcinoma of endometrium

Fluhmann and Kay had put forth following criteria 1) there should be no endometrial adenocarcinoma, 2) no primary squamous cell carcinoma of cervix and 3) if there is insitu change in cervix there should be no association with the endometrial neoplasm.⁵

In the present case, entire surface of the endometrium with endometrial glands had been replaced by stratified squamous epithelium with severe dysplastic changes with underlying carcinoma in situ changes in the cervical epithelium, so it does not fit into the criteria of primary squamous cell carcinoma of endometrium. This case is reported as microinvasive squamous cell carcinoma of the cervix with dysplastic changes into the endometrium.

CONCLUSION:

The occurrence of ichthyosis uteri with microinvasion and hydrometra is a well known entity. But severe dysplasia, carcinoma insitu changes and invasion into the underlying myometrium is a rare entity. Though ichthyosis uteri is a benign condition thorough histopathological examination is recommended to look for dysplasia and microinvasion.

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