

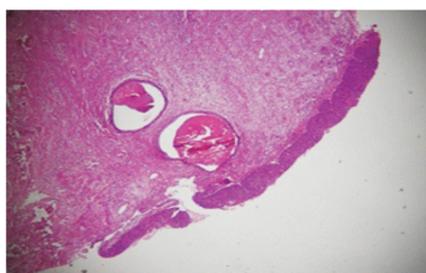
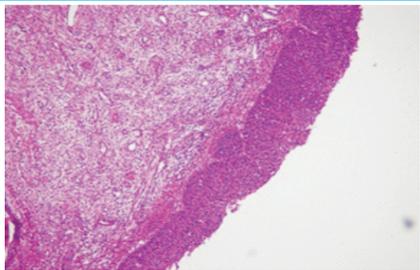
Introduction:

Squamous cell carcinoma of cervix is the most common gynecological malignancy caused by human papilloma virus (HPV) infection. Squamous cell carcinomas account for about 70% cases of cervical cancers. Invasive cervical cancer is ranked as the third most common cancer worldwide. Extension of cervical squamous cell carcinoma in situ or invasive tumor into the endometrium without myometrial invasion is an extremely rare phenomenon. We present a case of squamous cell carcinoma *in situ* of cervix with superficial extension to the endometrium without any myometrial involvement.

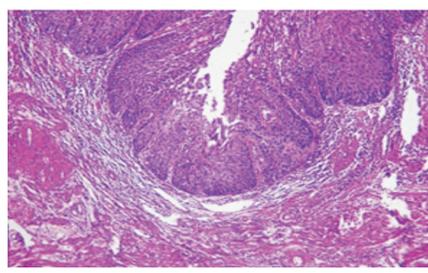
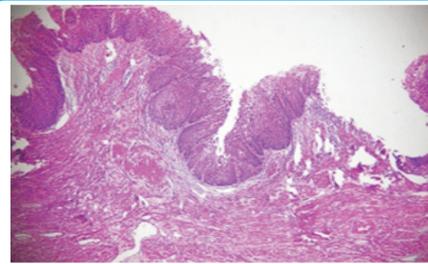
Case presentation:

We present a case of 65 years old female who presented in gynecological OPD with cervical discharge and lower abdominal pain. Clinical examination revealed pussy discharge with cervical erosions. Clinical diagnosis of pyometra of uterus was made followed by total abdominal hysterectomy with bilateral salpingo-oophorectomy.

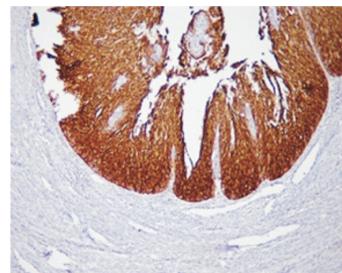
We received total abdominal hysterectomy with bilateral salpingo-oophorectomy specimen. Uterus (7.0x6.0x3.0cm), Cervix (2.5x2.0 cm), right ovary (2.0x1.8x1.0cm), right fallopian tube (2.0x0.5cm), left ovary (2.5x2.0x1.0cm) and left fallopian tube (3.0x0.5cm). On opening, uterine cavity revealed pus. Serial slicing of cervix revealed surface erosion with irregular cut surface. Serial slicing of uterine corpus revealed roughened endometrium measuring 0.6 cm in maximum thickness and unremarkable myometrium. Serial slicing of both adnexae was unremarkable. Representative sections were taken for microscopic evaluation. Microscopic examination of sections from cervix revealed stratified squamous epithelium showing full thickness dysplasia. No evidence of invasive tumor was seen in entirely examined cervix. Sections from endomyometrium revealed involvement of entire endometrium by squamous cell carcinoma in situ extending from cervix; however no involvement of myometrium was seen. Sections from bilateral adnexae were unremarkable without any involvement by SCC in situ.



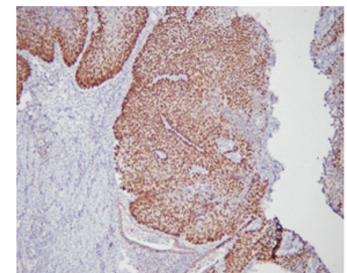
SCC in situ in cervix



SCC in situ extending into endometrium



CK-7



P-40

Immunohistochemical workup showed strong nuclear staining for p-63 and p-40 positivity while intense membranous staining was noted for CK-7.

Discussion:

Squamous cell carcinoma of cervix is the most common tumor of the female genital tract, accounting for about 70% of the cervical malignancies. The presence of squamous cell carcinoma *in situ* of the cervix extending into the endometrium suggests a superficial spread of carcinoma cells originating from the cervical mucosa. Initial studies have described the role of radiation in pathogenesis, however recent studies have found the same cell clone in cervical tissue as in endometrium suggesting that these tumors spread from cervix.

The common pattern of uterine corpus involvement by cervical squamous cell carcinoma is through deep myometrial penetration or via lymphatic dissemination. However, the superficial spread of *in situ* or invasive squamous cell carcinoma of the cervix contiguously involving endometrial surface, although rare, is also noted.

Different morphological spectrum has been reported for cervical cancer including squamous cell carcinoma *in situ*, microinvasive squamous cell carcinoma, invasive squamous cell carcinoma to adenosquamous carcinoma. Tumor contiguously involved adjacent fallopian tubes and ovaries as well. Moreover, the pattern of tumor spread in the endometrium was either *in situ* as in our case or with invasive tumor in continuity with the cervical malignancy.

Case reports on this unusual spread of cervical carcinoma in situ are published internationally but no such study has been

Discussion:

Few cases are reported in literature on superficial spread of squamous cell carcinoma *in situ* of cervix to the endometrium so far. The International Federation of Gynaecology and Obstetrics staging has not included such an entity in the staging of cervical carcinomas. The World Health Organization has also not included such entity in classification of cervical tumors. The prognostic significance and management guidelines for such unusual type of spread of cervical cancer are also not clear. It is hoped that increase in reporting of such rare cases will help in recognition of this as a separate entity with pathogenesis and formulation of management guidelines.