



A Rare Case of Invasive Squamous Cell Carcinoma of Cervix Extending to Endometrium and Right Fallopian Tube

Kate Madhuri S¹, Gulhane Sushma R², Mane Sheetal V³

¹ Professor and Head, ²Specialist cum Assistant Professor, ³Senior resident
Department of Pathology, ESI-PGIMSR and Model Hospital cum ODC,
Andheri (E).Mumbai, India.

ABSTRACT—Carcinoma cervix has been the most common cancer in women in India over the past two decades and most important cause of mortality among cancer affected women. Squamous cell carcinoma of cervix can involve the uterine corpus by direct extension or through parametrium by lymphatic invasion to the uterine wall. Superficial spread of squamous cell carcinoma of the cervix to the endometrium without invasion of underlying myometrium is a rare phenomenon. We report here a case of invasive cervical squamous cell carcinoma in a 50 year old female with superficial extension to the endometrium and right sided fallopian tube.

KEYWORDS: Carcinoma cervix, superficial spreading cancer cervix, endometrium, fallopian tube.

1, INTRODUCTION

Squamous cell carcinoma of the cervix is one of the commonest gynecological malignancies in India; however squamous cell carcinoma of the endometrium is very rare. Direct extension from cervical growth can involve the uterine corpus but superficial spread without invasion of underlying myometrium is uncommon. Also tubal involvement due to direct spread from cervical carcinoma is rare.¹A rare case of squamous cell carcinoma of the cervix with superficial extension to the endometrium and right fallopian tube is reported herewith.

2, CASE REPORT

A 50 year old female (Para 5, Live 4 Abortion 1), five years post -menopausal presented with



history of leucorrhoea since 2 months. A Pap smear was done and reported as high grade squamous intraepithelial lesion (HSIL)[FIG 1]. A cervical punch biopsy confirmed the diagnosis of squamous cell carcinoma in situ. Total abdominal hysterectomy was done.

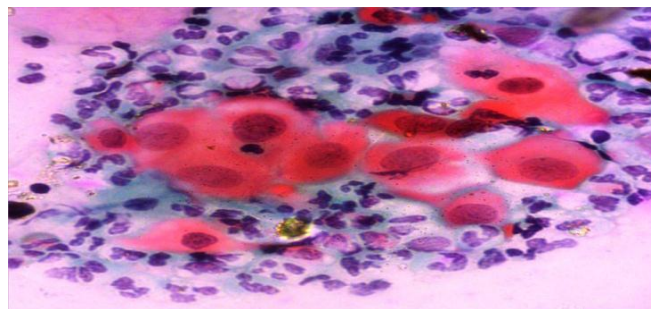


FIG 1:PAP smear showing features of HSIL

Grossly, the exocervical surface was irregular. The endocervix was unremarkable. The uterine cavity was dilated and contained pultaceous material. The endometrial surface had gray white corrugated appearance. [FIG 2]. The bilateral adnexa were unremarkable.

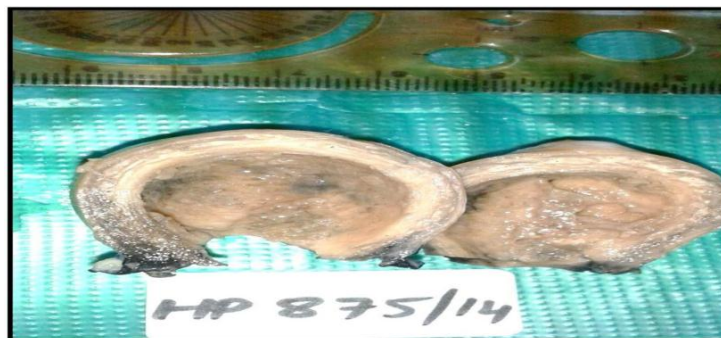


FIG 2: Grossly the endometrial cavity was dilated and showed grey white corrugated appearance.



3, MICROSCOPY

The cervical lesion consisted of invasive squamous cell carcinoma, moderately differentiated [FIG 3] extending up over the endometrial surface of the uterine cavity as *carcinoma in situ*. The entire endometrial surface was replaced with squamous cell *carcinoma in situ* without involving the underlying myometrium. [FIG 4] The right sided fallopian tube was involved by the tumour with foci of invasion into the wall of the tube.[FIG 5] Also a giant cell reaction was noted around the foci of invasion. Sections through left fallopian tube and both the ovaries were unremarkable.

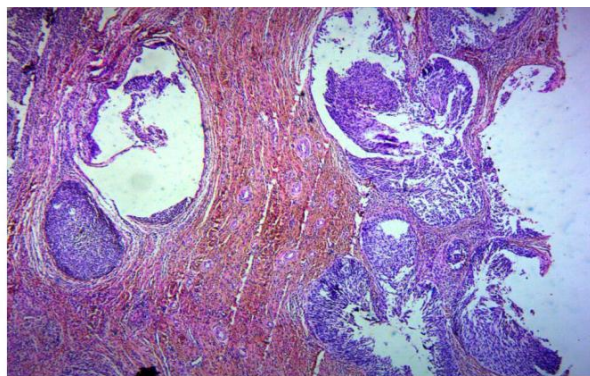


FIG 3: SCC of cervix with foci of invasion.

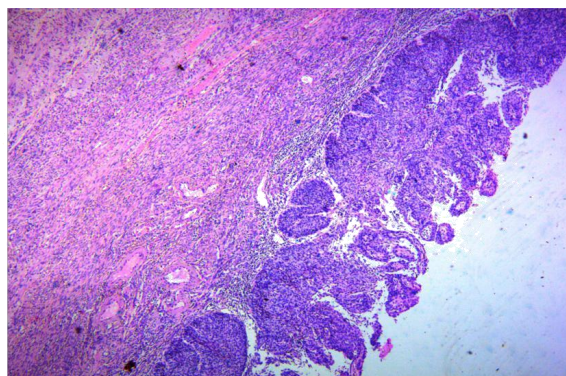


FIG 4: SCC of cervix replacing endometrium.

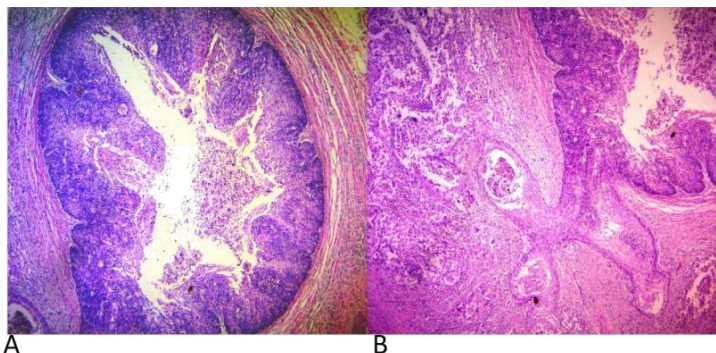


FIG 5: SCC of cervix replacing right fallopian tube mucosa(A) with foci of invasion(B)

4, DISCUSSION

Carcinoma of the cervix generally spreads upwards to the parametrium, and through lymphatic invasion to the uterine wall. The presence of invasive squamous cell carcinoma of the cervix, associated with squamous cell carcinoma *in situ* in the endometrium, suggests a superficial spread or a concomitant carcinoma in the endometrium. Primary squamous cell carcinoma may arise through the process of squamous metaplasia, as proposed by Baggish and Woodruff.² To be accepted as primary carcinoma of the endometrium, the tumour must satisfy the criteria established by Fluhmann and modified by Kay^{3, 4}. These criteria's are:

- 1) No coexistent endometrial adenocarcinoma,
- 2) No demonstrable connection between the endometrial tumor and the stratified squamous epithelium of the cervix, and
- 3) No primary cervical carcinoma.

The common pattern of uterine corpus involvement by cervical cancer is through deep myometrial penetration or via lymphatic dissemination. However, the superficial spread of *in situ* or invasive squamous cell carcinoma of the cervix over the contiguous endometrial surface may occur in rare instances. The superficial spread of cancer to the endometrium may be evident on gross inspection as 'cake icing' or "Zukerguess" carcinoma in which superficial squamous



tumour sweeps over or replaces the entire endometrium.¹ Although initial studies cited the role of radiation in pathogenesis; more recent studies have found the same cell clone in the tissue from cervix as in the endometrium suggesting that these tumors spread from the cervix *per se*.⁵ Cervical stenosis and subsequent pyometra could have a promoting effect for surface propagation of cervical cancer.⁶

Kushima *et al* reported five cases of superficial spreading SCC of the cervix involving the endometrium and/or Fallopian tube and ovary. They concluded that most tumors of this type were monoclonal neoplasia originating from the cervical mucosa with subsequent superficial spreading to the upper genital mucosa according to loss of heterozygosity analyses.⁷

Mitsuaki Ishida and Hidetoshi Okabe studied 2 such cases and demonstrated strong expression of CD138 in carcinoma cells that participate in superficial spreading by regulating cell-cell interactions while carcinoma cells lacking CD138 expression showed overt invasive growth.⁸

Superficial spreading carcinoma of cervix to the endometrium without involvement of the underlying stroma or myometrium is rare and to the best of our knowledge, upto 30 cases are reported in the literature.^{3, 4} The clinicopathological features of these previously reported cases of superficial spreading SCC of the cervix were:

- 1) The age of all patients was over 50 years;
- 2) The most common clinical presentation was genital bleeding;
- 3) The histological diagnosis of the of the primary cervical component has ranged from squamous cell carcinoma in situ, micro-invasive squamous cell carcinoma, invasive squamous cell carcinoma.
- 4) Fallopian tube with or without ovarian involvement was present in 10 cases.
- 5) 5 cases showed ovarian involvement.

In our case the age of presentation was 50 years with whitish PV discharge as the chief complaint histopathological examination of cervix showed invasive squamous cell carcinoma.



Also the pattern of spread in endometrium was *in situ* along with spread to right fallopian tube. One distinct feature in our case was focus of invasion seen in the wall of fallopian tube along with foreign body giant cell reaction to keratin.

CONCLUSION

Superficial spreading squamous cell carcinoma of the cervix to endometrium is a rare phenomenon, with fewer than 30 cases reported in the literature and only 10 cases showing involvement of fallopian tube. The International Federation of Gynecology and Obstetrics (FIGO) staging system has not included such an entity, in the staging of cancer cervix. The management guidelines for such type of spread of carcinoma cervix are also lacking. It is hoped that the increase in number of such reports will not only help in recognition of this entity but also in formulation of management guidelines.

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