A 60 yr old lady presented with postmenopausal bleeding. On examination cervix was flushed with vagina with no obvious growth, uterus was bulky in size with bilateral parametrium being free. Endometrial aspiration, endocervical curettage and colposcopy guided cervical biopsy revealed stratified squamous epithelium in all three biopsies and features of CIN I, II and focal areas of Carcinoma in Situ. MRI was suggestive of endometrial carcinoma. Extrafascial hysterectomy with bilateral salpingoophorectomy and lymph node sampling was performed. The specimen had ~4x5 cm growth in posterior myometrium with no endocervical growth. On histo-pathological examination endometrial growth had keratinising squamous cell carcinoma; cervix had focal areas of keratinising squamous cell carcinoma with extensive CIN III, without any continuity between cervix and endometrium. Case was thus diagnosed as keratinising squamous cell carcinoma of cervix extending to endometrium and left fallopian tube.

We report a case of keratinising squamous cell carcinoma of cervix extending to endometrium and left fallopian tube. (Figure 2-5) The mechanism of spread are likely to be deep myometrial penetration , lymphatic dissemination , superficial mucosal spread presenting as whitish patches called Zukerguss carcinoma [1], or squamous metaplasia in the endometrium as proposed by Baggish and Woodruff [2].

Squamous cell carcinoma of endometrium is diagnosed as primary of endometrium if it meets the Fluhmann and Kay criteria [3,4] i.e. absence of concomitant endometrial adenocarcinoma, no continuity between endometrial tumour and stratified squamous epithelium of cervix, no primary carcinoma cervix and if cervix shows carcinoma in-situ , there must be no connection between this and independent endometrial neoplasm.

We report a case of keratinising squamous cell carcinoma of cervix spreading to endometrium, causing endometrial growth and spread to the fallopian tube.

This patient underwent extrafascial hysterectomy with bilateral salpingoophorectomy and lymph node sampling. Gross examination of the specimen revealed bulky uterus 8–10  weeks size. No cervical growth was seen. External surface of uterus was smooth. Bilateral tubes and ovaries appeared normal. On sectioning the specimen a growth 4x5 cm was seen in the posterior myometrium , firm to hard in consistency, infiltrating the myometrium >50 %. 30 ml of hematometra was drained. No endocervical growth was seen. (Figure 1). On histopathological examination endometrial growth showed features of keratinising squamous cell carcinoma, with infiltration in >1/2 of myometrium but 1 cm from serosa. Cervix showed focal areas of keratinising squamous cell carcinoma with extensive areas of CIN III. There was no continuity between endometrial growth and the cervical SCC. Vaginal flaps were free of tumour. Infiltration of tumour was seen in the left fallopian tube. Right adnexa and both the ovaries were free of tumour. Lymph nodes were negative for tumour.

This case did not satisfy the Fluhmann and Kay criteria to be labelled as primary squamous cell carcinoma of endometrium, ie; the specimen had features of microinvasive carcinoma of cervix. Moreover there was lymphovascular invasion suggestive of most probable route of spread of squamous cell carcinoma of cervix causing growth in endometrium. HPV DNA and p16 which if positive could help us to confirm our diagnosis of squamous cell carcinoma of cervix spreading to upper genital tract but could not be done due to monetary concerns. Thus after extensive evaluation & discussion it was diagnosed as a keratinising squamous cell carcinoma of cervix extending into endomyometrium and left fallopian tube. (Figure 2-5)
Discussion:
In case of squamous cell carcinoma of upper genital tract, it is difficult to differentiate whether it is primary of endometrium or an upward spread from cervix solely by histological examination or spreading pattern [1,5,6]. HPV DNA and p16, a surrogate marker of HPV are positive in cases of HPV associated squamous cell carcinoma of cervix [7]. Thus apart from Fluhmann and Kay criteria[3,4] for primary squamous cell carcinoma of endometrium, HPV DNA and p16 can be used to differentiate primary SCC of endometrium from SCC of cervix spreading to endometrium. Due to monetary concerns, these tests were not done in our patient.

Our case presenting with pyometra and post menopausal bleeding had endometrial growth with myometrial invasion with focal areas of CIS in cervical biopsy without any obvious growth in cervix on speculum examination or MRI. No continuity was seen between the endometrial growth and the cervical SCC. Lympho-vascular invasion was seen. This suggests the most probable route of spread to be deep myometrial invasion as well as lympho-vascular invasion of SCC cervix causing a growth in endometrium as well as to the fallopian tube. Previously around 30 reports of spread of SCC Cervix to upper genital tract have been reported. The most common presentation in patients of SCC of cervix was post menopausal bleeding [1,8]. Hematometra as seen in our case has been a rare presentation, seen in two cases till date [8,10,11]. The primary cervical carcinoma have presented in varied forms ranging from CIS, micro-invasive SCC, invasive SCC to adenosquamous carcinoma. Among these invasive SCC has been the most common presentation [1,8,9,12]. This case presented as microinvasive SCC of cervix. Spread of the tumour to upper genital tract was mostly limited to endometrium. Only 5 cases with spread to fallopian tube and ovaries have been seen [8,12,13]. This case also presented with spread to the fallopian tubes. The spread of tumour to upper genital tract was mostly superficial spread with few showing invasion in the myometrium [8,9]. This case has unusual presentation as here the cervix has SCC in focal areas with extensive CIN III and no obvious growth in cervix causing a large growth in endometrium with myometrial invasion and spread to fallopian tubes.

This unusual spread of tumour has not been included in the FIGO staging system and so we do not have specific management guidelines for these cases. Most of the reported cases underwent radical hysterectomy with bilateral salpingo-oophorectomy and pelvic lymphadenectomy. They did not receive any post operative chemoradiation and have been on regular follow up. More cases need to be reported along with their management and long term prognosis for proper guidelines to come up.

![Figure 1: Gross picture of the specimen](image)

![Figure 2: Microphotograph showing malignant squamous cell carcinoma (shown by arrow) invading myometrium (HE100X).](image)

![Figure 3: Microphotograph showing malignant squamous cell carcinoma showing intraepidermal keratinization in myometrium (shown by arrow HE100X).](image)

![Figure 4: Microphotograph from fallopian tube showing invasion by SCC (HE100X).](image)

![Figure 5: Microphotograph from cervix showing full thickness dysplasia but no evidence of invasive SCC (HE100X).](image)

References: