Original Research Paper

Volume - 7 | Issue - 6 | June - 2017 | ISSN - 2249-555X | IF : 4.894 | IC Value : 79.96

Gynaecology

Carcinoma Cervix Presenting as Predominant lesion of Uterine Corpus: Posing Diagnostic & Management Dilemma

Gunjan Kumari	Senior Resident, Dept. of Obs & Gynae, Maulana Azad Medical College, New Delhi , India
Anjali Tempe	Director Professor, Dept of Obs & Gynae, Maulana Azad Medical College, New Delhi, India
Nidhi Verma	Assistant Professor, Dept of Pathology, Maulana Azad Medical College, New Delhi, India
Nilanchali Singh	Assistant Professor, Dept of Obs & Gynae, Maulana Azad Medical College, New Delhi, India

ABSTRACT

Background: Squamous cell carcinoma of cervix extending to upper genital tract and presenting as predominant uterine tumour is rare. It should be distinguished from primary squamous cell carcinoma of endometrium.

Case: 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 perfomed. The specimen had ~4x5 cm growth in posterior myometrium with no endocevical 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.

Conclusion: To differentiate between primary squamous cell carcinoma of endometrium and squamous cell carcinoma of cervix spreading to upper genital tract a detailed histopathological examination is required. HPV DNA and p16 if available can be useful adjunct. More cases need to be reported for proper management guidelines to come up.

KEYWORDS :

Introduction:

Sqamous cell carcinoma of cervix extending to upper genital tract, i.e; upto fallopian tube and ovary is extremely rare. An American data shows upper genital tract spread of carcinoma cervix in 0.7% cases.

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 sqamous cell carcinoma of cervix spreading to endometrium, causing endometrial growth and spread to the fallopian tube.

Case report:

A 60 yr old female $P_4L_4A_1$ presented with post menopausal bleeding for 4 months. She had been menopausal for past eight years. She was married at age of 15 yrs, had four full term spontaneous vaginal deliveries. She had no other significant past or family history. On examination vitals were stable and other systemic examination was unremarkable. Speculum examination revealed cervix to be pulled up and flushed with vagina and no visible growth was seen. On bimanual examination cervix was flushed with vagina, firm in consistency. Uterus was bulky, 8 wk size, adnexa was free, bilateral parametrium and rectal mucosa was free. During her work up she was diagnosed as Diabetes Mellitus, which was controlled on diabetic diet and tab metformin. USG showed bulky uterus with thin streak of anechoeic fluid in endometrium suggestive of pyometra. Hence, pyometra drainage was done.

After two weeks, colposcopy was done showing aceto-white and iodine negative areas. Endometrial aspiration & endocervical curettage with cervical biopsy was done. All three biopsies showed superficial strips of stratified sqamous epithelium showing features of CIN I, II and focal areas of CIS. MRI revealed enlarged uterus showing ill-defined altered signal intensity lesion in endometrium with myometrial invasion with lesser enhancement than myometrium suggestive of endometrial carcinoma. A diagnosis of carcinoma endometrium was made initially.

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)

The patient received post operative radiotherapy, in form of intensity modulated radiotherapy (IMRT) and is on regular follow up for one

year.

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 Fluhman 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 monetory 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 adenosqamous 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 edometrium 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-ophorectomy 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.

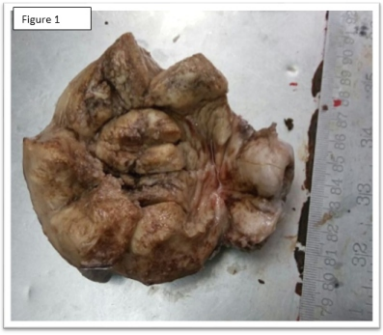

Figure 1: Gross picture of the specimen

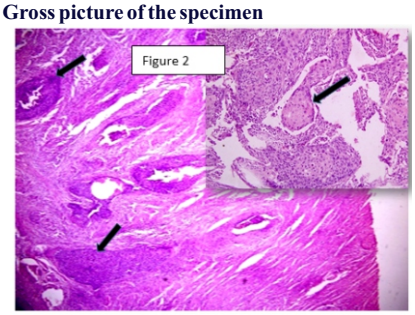

Figure 2: Microphotograph showing malignant squamous cell carcinoma (shown by arrow) invading myometrium (HE100X). Inset showing high power view of SCC showing intracytoplasmic keratinisation (Shown by arrow HE400X)

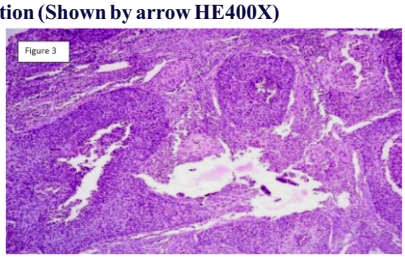

Figure 3: Microphotograph showing malignant squamous cell carcinoma showing intracytoplasmic keratinization in myometrium (shown by arrow HE100X).

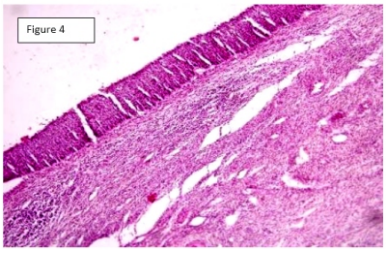

Figure 4: Microphotograph from cervix showing full thickness dysplasia but no evidence of invasive SCC(HE100X)

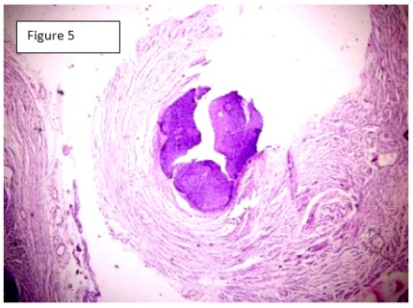

Figure 5: Microphotograph from Fallopian tube showing invasion by SCC (HE100X)

References:

1. Agashe SR, Kulkarni MP, Momin YA, Sulhyan KR. Superficial extension of squamous cell carcinoma in situ of cervix involving endometrium, bilateral fallopian tubes and ovaries: A case report. Indian J Pathol Microbiol. 2007;50:375–7. [PubMed: 17883080]
2. Baggish MS, Woodruff JD. The occurrence of squamous epithelium in the endometrium. Obstet Gynecol Surv. 1967;22:69–115. [PubMed: 5343333]
3. Fluhmann CF. Squamous epithelium in the endometrium in benign and malignant conditions. Surg Gynecol Obstet. 1928;46:309–16.
4. Kay S. Squamouscell carcinoma of the endometrium. Am J Clin Pathol. 1974;61:264–9.
5. Kimura M, Matsumoto T, Morizane T, Sonoue H, Ogishima D, Kinoshita K. Histopathological study of the spreading neoplastic cells in cervical glands and surface epithelia in cervical intra-epithe-lial neoplasia and microinvasive squamous cell carcinoma: Ki-67 immunostaining is a useful marker for pathological diagnosis from the gland involvement site. Pathol Int 2006; 56: 428-33.
6. Fadare O. Dysplastic Ichthyosis uterilike changes of the entire endometrium associated with a squamous cell carcinoma of the uterine cervix. Diagn Pathol. 2006;1:8. [PMCID: PMC1475890]
7. O'Neill CJ, McCluggage WG. p16 expression in the female genital tract and its value in diagnosis. Adv Anat Pathol 2006; 13: 8-15.
8. Gungor T, Altinkaya SO, Ozat M, Akbay S, Mollamahmutoglu L. Unusual form of superficial spreading squamous cell carcinoma of cervix involving the endometrium, bilateral tubes and ovaries: A case report with literature review. Arch Gynecol Obstet. 2010;283:323–7. [PubMed: 20852876]
9. Lim C, Leecy T, McKenzie P, Pather S, Carter J, Russell P. Two cases of adenosquamous carcinoma of cervix with extensive in situ and invasive endometrial extention. Int J Gynaecol Pathol. 2011;30:193–7.
10. Kushima M, Fujii H, Murakami K, Ota H, Matsumoto T, Motoyama T, et al. Simultaneous squamous cell carcinomas of the uterine cervix and upper genital tract: Loss of heterozygosity analysis demonstrates clonal neoplasms of cervical origin. Int J Gynecol Pathol. 2001;20:353–8. [PubMed: 11603219]
11. Tan GC, Isa MR, Ng SP, Jamil YM. Unusual form of superficial spreading microinvasive squamous cell carcinoma of uterine cervix involving the endometrium of uterus. J Obstet Gynecol Res. 2004;30:363–7. [PubMed: 15327449]
12. Gulati HK, Anand M, Deshmukh SD .Squamous cell carcinoma of the uterine cervix extending to the corpus in superficial spreading manner and causing hematometra. J Midlife Health. 2013 JanMar; 4(1): 63–64.
13. Kanbour AI, Stock RJ. Squamous cell carcinoma in situ of the endometrium and fallopian tube as superficial extension of invasive cervical carcinoma. Cancer. 1978;42:570–80.
14. Sandhyamani S, Seth HN, Verma K. Intraepithelial involvement of endometrium, fallopian tube and vagina by cervical carcinoma. Indian J Pathol Microbiol. 1983;26:299–303.