

Case Report

## Squamous Cell Carcinoma: A Rare Case with Unusual Presentation in Uterus

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### ABSTRACT

Squamous cell carcinoma occurs most commonly in cervix of uterus, though it is known to occur rarely as pure squamous cell carcinoma of endometrium. Often the presentation of squamous cell carcinoma of cervix makes itself obvious as it presents as a primary lesion of cervix in one of the usual forms as polypoidal or ulcerative lesions and uncommonly as diffusely infiltrative lesion of cervix. The case being presented here is one of the rare forms of presentations in the form of uterine curettage showing primary squamous cell carcinoma, the curettage being carried out to diagnose a case of woman admitted with unusual presentation of traumatic vaginal bleeding after alleged fall in bathroom.

**Case Report:** A 70-year-old female presented with bleeding per vagina after an alleged fall in the bathroom. On clinical examination, bleeding from the vagina was noted. Per speculum examination also revealed a tiny polypoidal growth over the cervix. No ancillary investigations such as ultrasonography or CT findings are available. A diagnostic endometrial curettage was carried out which, on histological examination, revealed moderately differentiated squamous cell carcinoma of endometrium. Histological examination of the tiny cervical biopsy also revealed moderately differentiated squamous cell carcinoma.

**Conclusion:** The case being presented here is an interesting and highly confounding one in the fact that the endometrial squamous cell carcinoma manifested in a manner of unusual clinical presentation as traumatic bleeding per vagina due to alleged fall in the bathroom and no previous history of having bleeding per vagina or any evidence of mass in/over the cervix was evident which makes it an enigmatic endometrial squamous cell carcinoma with a rare and unusual presentation, inasmuch as the histogenesis of the squamous cell carcinoma of endometrium remains uncertain since there is no way of finding if the squamous cell carcinoma extended down into the cervix or an occult cervical Squamous cell carcinoma had an insidious transcelomic spread into the uterine cavity.

**Key Words:** Squamous cell carcinoma, pure endometrial squamous cell carcinoma, Endometrium, Endometrial squamous cell carcinoma, Menopause

### INTRODUCTION

Squamous cell carcinoma of endometrium is an enigmatic entity since the diagnosis of primary squamous cell carcinoma of Endometrium mandates ruling out of transcoelomic spread of squamous cell carcinoma of cervix. Primary endometrial Squamous cell carcinoma is

rare and according to available medical literature only 70 cases of primary endometrial carcinoma have been reported. <sup>[1]</sup> Squamous cell carcinoma of endometrium is defined as a primary carcinoma of the endometrium which is mainly composed of squamous cells of varying degree of differentiation. <sup>[2]</sup> The

diagnostic criteria of primary endometrial squamous cell carcinoma, as proposed in 1928, are as given below: 1. There must not be co-existence of adenocarcinoma of endometrium; 2. There must not be any connection between endometrial squamous cell carcinoma and squamous epithelium of Cervix; 3. There must be no primary cervical squamous cell carcinoma; 4. There must not be connection between any existing cervical *in situ* carcinoma and the independent endometrial neoplasm. [3] The case being reported here is an interesting case of Squamous cell carcinoma of endometrium which was detected in a manner of unusual presentation.

### CASE REPORT

The case being presented here is of a multiparous woman aged 70 years, who apparently was asymptomatic until she fell down in the bathroom and presented with bleeding per vaginum since 20 days. On per speculum examination, bleeding was occurring from uterus. Also noted was a tiny polypoidal growth measuring about 1x1cm over the cervix which was apparently bleeding on touch. However, ultrasound or CT examination was not carried out. As part of clinical management an endometrial curettage was done. Two specimens in two separate containers labelled as endometrial tissue and cervical biopsy respectively were received in the institutional histopathology section. The endometrial tissue comprised multiple gray-white, soft to firm tissue fragments collectively measuring 1cm, while the container labelled as cervical biopsy contained a solitary tiny grayish white tissue fragment which measured 0.5cm in maximum dimension. Histomorphological examination of the endometrial curettage specimen revealed multiple fragments of slightly discohesive endometrial tissue fragments composed of round to polygonal to ovoid cells arranged in sheets and nests, which contained ample eosinophilic cytoplasm and pleomorphic vesicular nuclei with highly increased nucleocytoplasmic ratio and prominent

nucleolus (figure 1). At places, solid sheets of cells with abundant eosinophilic cytoplasm and highly pleomorphic nuclei displaying squamoid features such as dyskeratosis and presence of parakeratotic whorls (Keratin pearls) were also noted (figure 2,3).

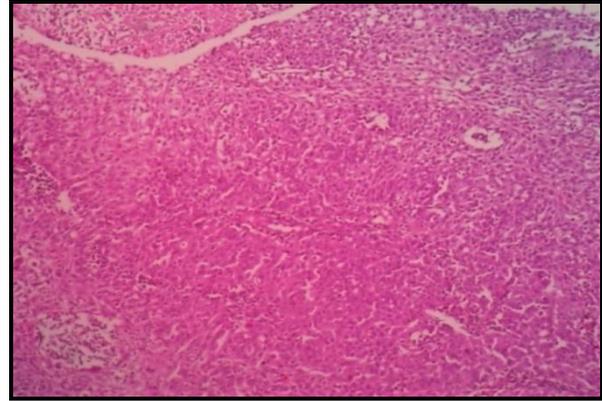


Figure 1: Photomicrograph showing endometrial tissue composed of round to oval to polygonal cells with pleomorphic nuclei arranged in nests and sheets (H&E, 10X)

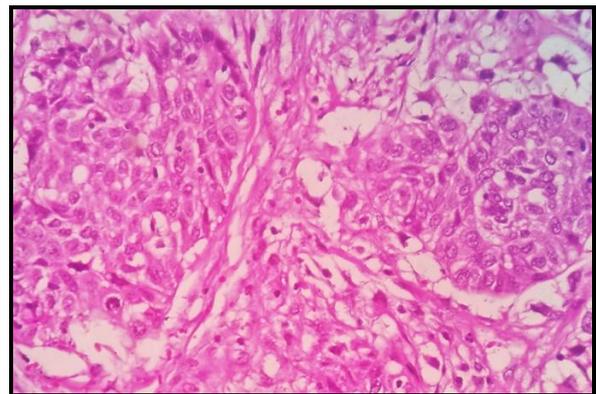


Figure 2: Photomicrograph showing moderately differentiated squamous cell carcinoma of endometrium depicting atypical mitosis (H&E, 40X)

Focal areas of necrosis and haemorrhage were also evident in some areas. However, no unequivocal evidence of angiovascular or perineural invasion was seen. A diagnosis of moderately differentiated squamous cell carcinoma of endometrium was made. Sections from the cervical biopsy showed discohesive and multiple fragmented cervical tissue pieces, some of which were lined by highly dysplastic stratified squamous epithelium. The subjacent cervical tissue showed multiple large sheets and nests of round to polygonal to ovoid cells showing marked

nuclear pleomorphism in the form of varying nucleomegaly, diffusely dispersed nuclear chromatin and highly conspicuous nucleolus (figure 4). Few mitotic figures and apoptotic bodies were also noted. Also noted were focal confluent areas of necrosis and focal isolated areas of angiolymphatic invasion (figure 5,6). It was diagnosed as moderately differentiated squamous cell carcinoma.

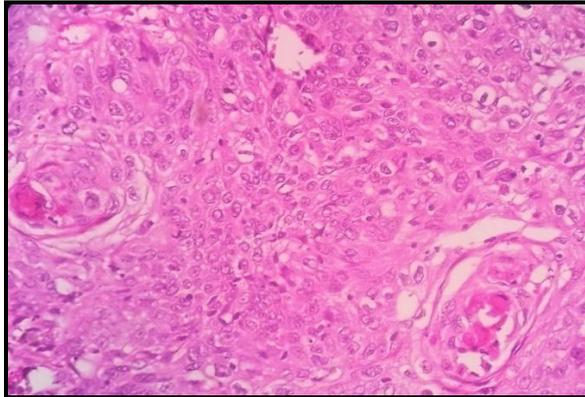


Figure 3: Photomicrograph depicting moderate to well-differentiated squamous cell carcinoma of endometrium with well-formed keratin pearls (H&E,40X)

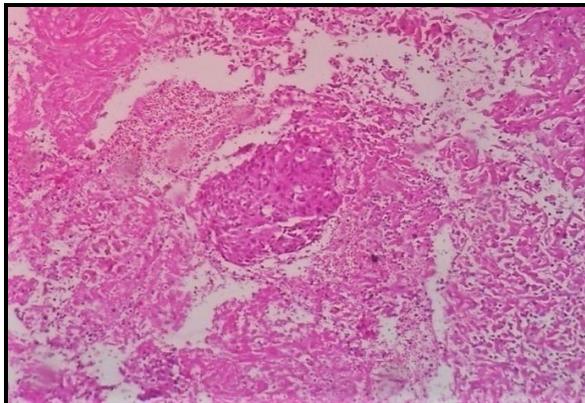


Figure4: Photomicrograph showing a nest of moderately differentiated squamous cells in cervical biopsy on a surrounding necrotic background and sheets (H&E,10X)

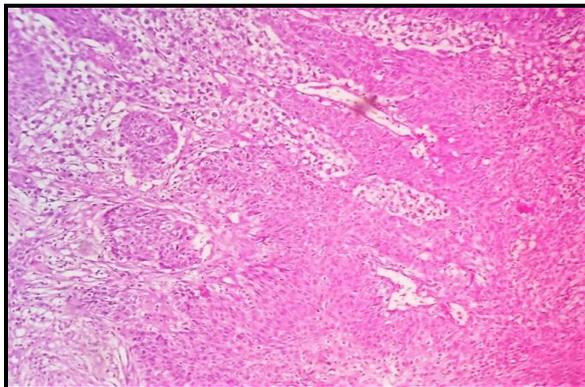


Figure 5: Photomicrograph of squamous cell carcinoma of cervix showing angiolymphatic invasion (H&E,10X)

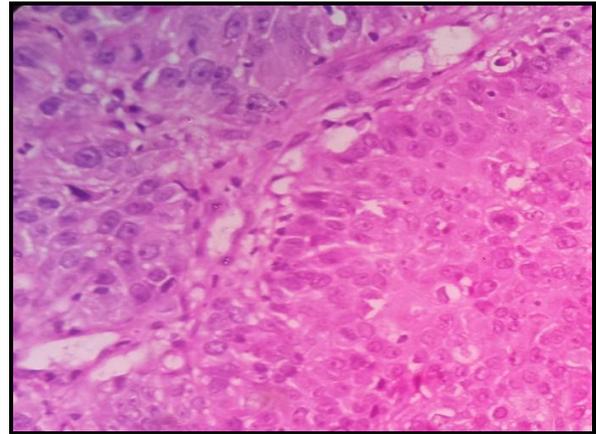


Figure 6: Photomicrograph showing eddies of moderately differentiated squamous cell carcinoma of cervix separated by convoluted blood vessel (H&E,40X)

## DISCUSSION

Endometrial carcinoma originates, as it is known, from the uterine cervix. Several theories or hypothesis regarding histogenesis of endometrial Squamous cell carcinoma have been put forth. One of the theories proposes that endometrial Squamous cell carcinoma arises from the reserve or stem cells located between the basement membrane of endometrial glands and endometrial columnar cells. Second hypothesis proposes that there could be Squamous Metaplasia of the endometrium which might be the source of histogenesis of primary endometrial Squamous cell carcinoma; a third and the rare theory that proposes histogenesis of primary Squamous cell carcinoma of the endometrium is through the most uncommon presence of heterotopic cervical tissue in endometrium of uterus. [4] The present case is quite an interesting and profoundly enigmatic in its origin since it presented in an unusual manner of presentation with no previous history of any of the clinical features of either Squamous cell carcinoma of cervix or endometrium. The endometrial curettage which was carried out after traumatic bleeding per vagina showed evidence of endometrial Squamous cell carcinoma with cervix showing an incidental finding of presence of a tiny polypoidal structure. Under such circumstances, it is highly difficult to determine the exact origin of Squamous cell carcinoma as Squamous cell

carcinoma of cervix is supposed to present overtly as bleeding per vagina with other associated features such pain and bleeding after coitus. Also confounding the problem in the current case being non-availability of other ancillary investigations such as image screening studies like ultrasound or CT of uterus. Primary Squamous cell carcinoma of endometrium was reported in literature with associated Squamous metaplasia or Ichthyosis of uterus, the Squamous Metaplasia acting as source of histogenesis of pure primary Squamous cell carcinoma of endometrium. [5] Harveen Kaur et al reported a case of Squamous cell carcinoma of uterus which spread in a superficial manner by pushing and replacing the endometrial tissue without invading the underlying structures. [6] Sung Jong Lee et al reported primary endometrial Squamous cell carcinoma (PESCC) in a 54-year old female with history prolonged vaginal bleeding with categorical absence of squamous cell carcinoma in cervix. [7] In their comprehensive study of the PESCC, no conclusive etiological evidence for squamous cell carcinoma was found including absence of infection by Human Papilloma Virus (HPV), though infection by HPV is one of the primary causes of squamous cell carcinoma of cervix.

## CONCLUSION

The case being presented here is of utmost clinical interest since this case of squamous cell carcinoma of endometrium was diagnosed incidentally under hitherto one of the unusual clinical manifestations as the patient neither had any clinical features of either squamous cell carcinoma of cervix or endometrium and the patient presented to the out-patient department with history of traumatic bleeding after an alleged fall in the bathroom. Secondly, as the patient did not have any pertinent history or clinical features of neoplastic lesions of cervix or endometrium, the diagnosis of squamous cell carcinoma of endometrium becomes very perplexing in a manner that the accurate histogenesis of squamous cell

carcinoma could not be determined under the given circumstances since the clinicians did not have further access to the patient carry out relevant investigations to investigate further as to know if the squamous cell carcinoma arose de novo in the endometrium or it actually had direct transcelomic and/or parametrial lymphatic spread to the endometrium from its primary site in cervix.

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