

## Superficial spreading squamous cell carcinoma in-situ of uterine cervix involving the endometrium: report of a case.

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### Abstract:

Superficial spreading squamous cell carcinoma in-situ of uterine cervix involving the endometrium without invading underlying myometrium, is rare phenomenon. In some very rare cases except endometrium, fallopian tubes and ovaries are also involved. Even the primary squamous carcinoma of endometrium is very rare, in most cases it is result of up stream spread of carcinoma of cervix. Some authors reported that post-radiation therapy of cervical carcinoma contributed in this kind of pattern involving endometrial surface. Our patient is one of rare reported cases in which in-situ carcinoma of cervix superficially had spreaded to endometrial surface, without invasion of underlying myometrium.

**Keywords:** in-situ squamous cell carcinoma, cervix, endometrium.

### Introduction

Cervix is common site of squamous cell carcinoma, but primary squamous cell carcinoma of the endometrium is very rare condition. Secondary involvement by squamous cell carcinoma of cervix is more common and such involvement usually occurs via lymphatic route or by deep myometrial spread (1). Very rare is its superficial extension without invasion that was first described by Cullen (2) in 1900. It can spread further and involving both the fallopian tubes and ovaries which is extremely rare (3). In last 100 years there were at least 15 similar reports about this kind of phenomenon which is connected with post radiation therapy (1,2,3). We report a case of squamous cell carcinoma in-situ of cervix with superficial extension involving complete endometrium surface, without invasion of underlying myometrium and no extension to both fallopian tubes and ovaries. This is a rare phenomenon, with less than 10 cases reported so far in the literature.

### Case report

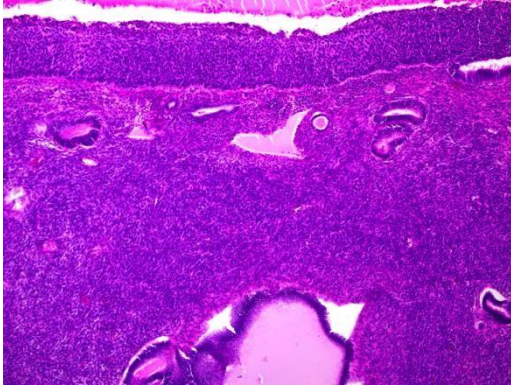
A 63-year-old, housewife, presented with postmenopausal spotting for the past 3 months. She was referred to University Clinical Hospital Mostar by a private gynecologist for further treatment. The patient had been menopausal for the past 14 years. A cone biopsy was performed, which on histological examination showed cervical intraepithelial neoplasia III/CIS (carcinoma in-situ). Invasion could not be excluded. After that the patient underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy, and a specimen was submitted for histopathological evaluation.

### Pathology findings

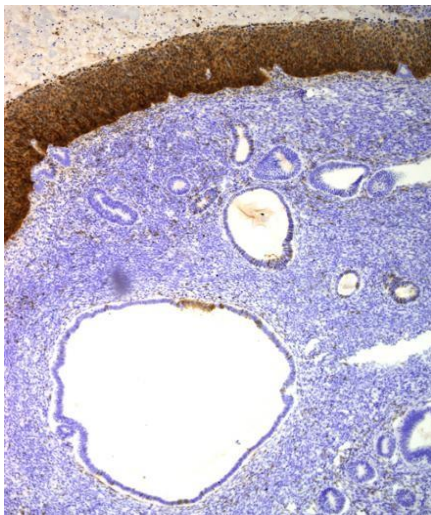
Uterus 12x5x4 cm with tubes and ovaries showing small cervix without macroscopically evident tumour mass. Microscopically, both ectocervical and endocervical epithelium was replaced by malignant squamous cells that were tightly packed and disorganized showing high nuclear-cytoplasmic ratio and numerous mitotic figures. This change was also seen in endocervical glands, and had superficially spreaded to the entire



endometrium without invading underlying myometrium (Figure through lymphatics. Superficial spreading squamous cell carcinoma 1). Immunohistochemical marker p16 was used to confirm the in-situ of uterine cervix involving the whole surface endometrium origin of malignant squamous cells, showing strong and diffuse can occur very rarely. In our patient this kind of spreading pattern cytoplasmic and nuclear expression (Figure 2). The rest was seen. Microscopically, entire endometrial surface was covered endometrial glands were atrophy appearance with one atrophic with malignant squamous epithelium showing no invasion of polyp of endometrium, measuring 1,1cm in diameter. In underlying myometrium. Both fallopian tubes were lined by myometrium we found one leiomyoma measuring 1,5cm in normal ciliated columnar epithelium and both ovaries shown no diameter. Fallopian tubes and ovaries shown no pathological findings. Similar to our case there were five cases reported (6,7,8). All of them reported in-situ fashion squamous carcinoma of uterine cervix with superficial spreading and replacing whole surface endometrium without macroscopic and microscopic signs of invasion of underlying myometrium. Also in these cases both fallopian tubes and ovaries were without pathological findings. Similar to these cases, some authors reported patients who have had this pattern also involving fallopian tubes (9,10) and even ovaries (3). In some cases authors reported that this pattern was discovered few years after radiation therapy of squamous cell carcinoma of the cervix (9,10). Even there were cases reported considering primary squamous cell carcinoma of endometrium (11) it is obvious that in our case mechanism of superficial spreading carcinoma of cervix resulted in replacement of columnar epithelium of whole surface endometrium.



**Figure 1.** Malignant squamous cells had superficially spreaded to the entire endometrium without invading underlying myometrium.



**Figure 2.** Immunohistochemical marker p16 showing strong and diffuse cytoplasmic and nuclear expression.

## Discussion

Although squamous carcinoma of uterine cervix is common condition, endometrial squamous cell carcinoma is very rare in case (3). Squamous cell carcinoma of endometrium can arise from two sources. First one is proposed by Baggish and Woodruff (4) who suggested that primary squamous carcinoma of endometrium probably arise in process of squamous metaplasia. To confirm this diagnosis Fluhmann (5) established three further criteria: no co-existing endometrial carcinoma, no demonstrable connection between the endometrial tumour and the stratified squamous epithelium of cervix, and third one no primary cervical carcinoma. The second mechanism of how squamous carcinoma can be found in endometrium is direct extension from squamous carcinoma of uterine cervix. Biology of this kind of tumour is commonly aggressive showing deep myometrial invasion and dissemination

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