

## Carcinoma *in situ* of the cervix with superficial extension to the endometrium

## Carcinoma *in situ* do colo do útero com extensão superficial ao endométrio

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### Abstract

Squamous cell carcinoma (SCC) is the most frequent histological type of cervical cancer. It generally invades directly into the uterine wall but, in rare cases, spreads superficially to the inner surface of the uterus, replacing the endometrium, known as superficial spreading SCC. The authors present a rare case of a postmenopausal woman with carcinoma *in situ* of the cervix with superficial extension through the totality of the uterine cavity, including fundus. SCC is a rare entity which staging, prognosis and management guidelines have not been described.

**Keywords:** Superficial spreading; carcinoma *in situ*; cervix; squamous cell carcinoma; uterine cavity

### INTRODUCTION

Cervical cancer represents 6% of gynecological malignant tumors, with an incidence of about 12,2/100000 cases<sup>1,2</sup>. Persistent infection with carcinogenic types of human papilloma virus (HPV) is essential for the development of uterine cervical cancer<sup>3</sup>. Squamous cell carcinoma (SCC) is the most common malignant tumor of the cervix, comprising 70-80% of cervical malignancies<sup>4</sup>. SCC generally invades directly into the uterine wall with or without parametrial involvement but, in rare cases, can spread superficially to the inner surface of the uterus, replacing the endometrium with carcinoma cells<sup>4,6</sup>. Direct extension to the endometrium replacing it without myometrial invasion is a rare type of dissemination known as superficial spreading SCC<sup>4</sup>. Such an entity has not been in-

cluded in the International Federation of Gynaecology and Obstetrics staging of cervical cancer or in the World Health Organization of tumors of the cervix. Prognosis of SCC is related to the histological type, lymphovascular dissemination, tumoral extension and lymph node metastization<sup>7</sup>. Prognosis and management guidelines for superficial spreading SCC have not been described.

### CASE REPORT

The authors report a case of a 61-years-old female, with three gestations, two of which with vaginal births and one first trimester abortion, menarche at 15, first intercourse at 17 and menopause at 50 years old. The patient had no previous Gynaecological or pathological history of diseases and had not taken any HPV vaccine. The patient had performed an opportunistic screening of cervical cancer and was referenced to our Gynaecology department because of High-Grade Squamous Intraepithelial Lesion (HSIL) detected in the cytological smear of the cervix. Gynaecological exam was performed and was macroscopically normal. It was per-

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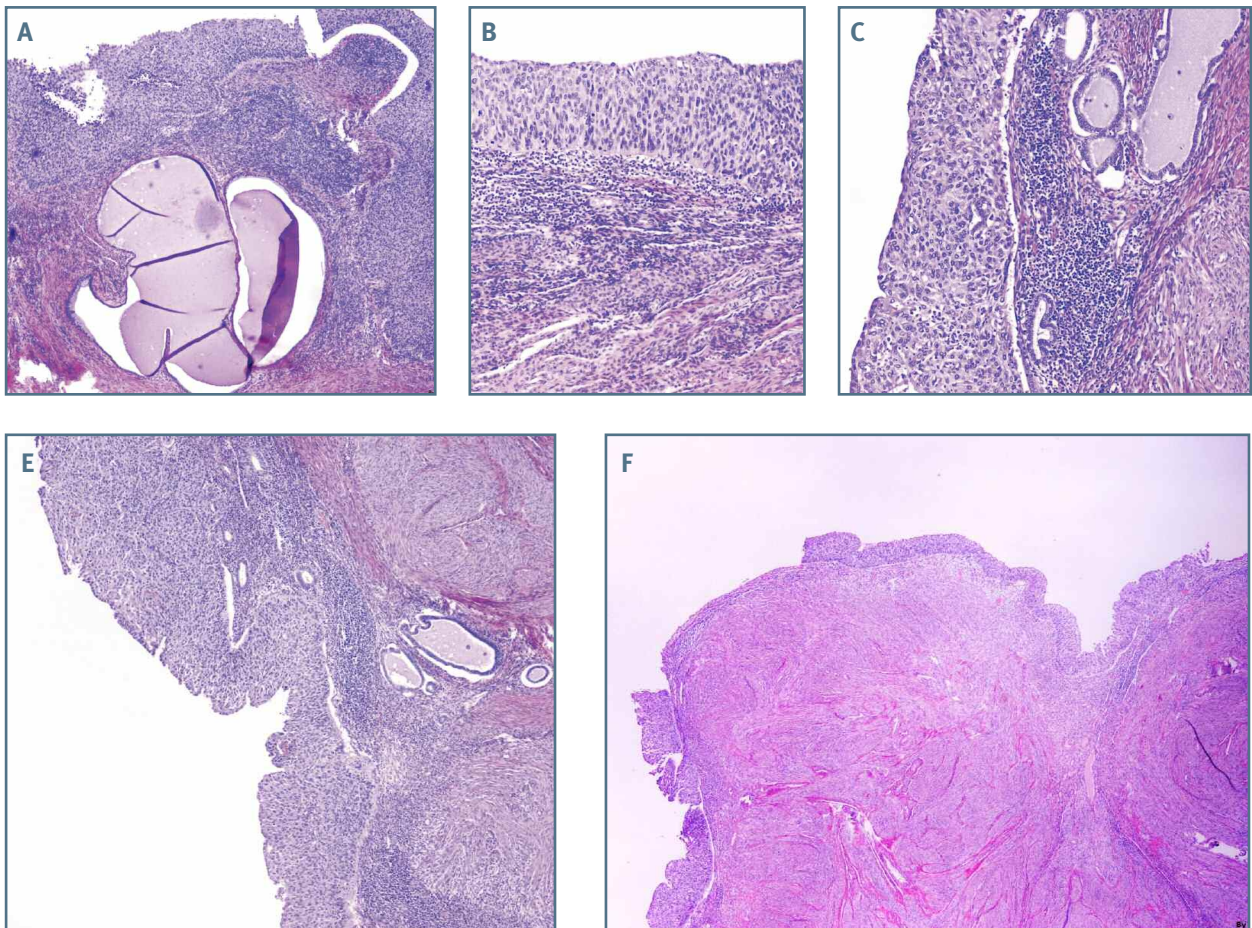
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formed a colposcopic examination which was classified as inadequate because of a blood obstructing visualization in a fragile and bloody cervix. Transformation zone was apparently type 3. It was decided to perform a cervix conization which histological exam revealed a cervical squamous intraepithelial neoplasia 2 (CIN 2) without free margins. A second conization of the cervix was performed which histological exam revealed cervical squamous intraepithelial neoplasia 3 (CIN 3)/carcinoma *in situ*, without free margins. After discussion of the situation with the patient it was decided to perform a total hysterectomy with bilateral anexectomy, which was executed uneventfully. The histological exam revealed *in situ* carcinoma involving the entire circumference of the uterine cervix with superficial extension to the entire uterine cavity, including fundus (Figure 1). There was no evidence of deep

infiltration of the tumor in the uterine wall. There was no stromal infiltration. Considering the rarity and extension of the SCC in this case, a magnetic resonance imaging (MRI) scan was performed after surgery. There was no evidence of metastatic disease on the MRI. Parametrium were apparently free of disease on clinical evaluation. No complementary treatment was performed. The patient had no recurrence of the disease after two years follow-up.

## DISCUSSION

SCC of the cervix is the most common tumor of the female genital tract, responsible for up to 70-78% of cervical malignancies. Carcinoma of the cervix usually spreads to the parametrium and through the uterine



**FIGURE 1.** Microscopic images of hysterectomy piece revealing squamous cell carcinoma *in situ* of the cervix (A, 4x H&E staining) and endometrium of the body and uterine fundus (B, 10x H&E staining; C, 10x H&E staining; D, 4x H&E staining); Bilobular polypoid submucosal leiomyoma superficially coated by carcinoma (E, 2x H&E staining)

wall<sup>8</sup>. However, the presence of SCC *in situ* of the cervix with squamous carcinoma *in situ* of the endometrium in the lower uterine segment suggests a superficial spread of carcinoma cells from the cervical mucosa<sup>9</sup>. Superficial spread of SCC *in situ* of cervix to the endometrium is a rare event, with few cases reported in the literature. The clinicopathological features of the previously described cases of superficial spreading SCC suggest that age over 45 years old, early marriage, early first intercourse, multiparity and HPV infection are predisposing factors<sup>9</sup>. Few of these factors were seen in our patient. Superficial spreading SCC is an entity that has not been included in the International Federation of Gynaecology and Obstetrics staging of cancer cervix or in the World Health Organization of tumors of the cervix. Prognosis of SCC is related to the histological type, lymphovascular dissemination, tumoral extension and lymph node metastization<sup>7</sup>. Prognosis and management guidelines for superficial spreading SCC have not yet been described. In our patient it was performed hysterectomy and bilateral anexectomy. When definitive histological diagnosis was obtained and after a review of the literature of similar cases, no complementary treatment was offered. The patient had no recurrence of the disease after two years follow-up. Our case report is intended to help others to recognize this rare entity. We hope that the increasing number of reports of superficial spreading SCC will help to formulate management guidelines.

#### ACKNOWLEDGEMENTS

The authors thank the Hospital of Santa Luzia, where they carry out their professional activity, namely the Departments of Gynecology and Obstetrics and Pathologic Anatomy.

#### FUNDING ACKNOWLEDGEMENTS

There were no funding for this work.

#### DECLARATION OF CONFLICT OF INTEREST

There are no conflicts of interest.

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RECEBIDO EM: 09/11/2017

ACEITE PARA PUBLICAÇÃO: 19/12/2017