

Sebaceous gland — unusual histological finding in the uterine cervix

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Sebaceous glands have been extremely rare findings in the female genital system. Excluding the vulva and recent findings, very few cases have been described. The origin of the lesions remains a topic of speculation. However, it appears that prolonged irritation induces a metaplastic response in the ectocervical epithelium. A new case of sebaceous glands in the ectocervix of a 46-year-old woman is reported. The lesions were unexpectedly found in a hysterectomy specimen. The procedure was carried out for multiple leiomyomas of the uterine corpus. Histological examination revealed three mature sebaceous glands located distally to the transformation zone, which opened directly onto the surface epithelium. It could be concluded that sebaceous glands in the ectocervix are rare lesions of unclear origin and low clinical significance. However, the glands could potentially be associated with sebaceous carcinoma of that anatomical site. (Folia Morphol 2009; 68, 4: 287–289)

Key words: sebaceous metaplasia, ectocervix

INTRODUCTION

The sebaceous glands are a normal component of the majority of regions of the skin (except the palms and soles), which are frequently found in close proximity to hair follicles, forming pilosebaceous complexes or opening directly to the epidermal surface. However, they are also occasionally observed in ectopic sites, including buccal and oesophageal mucosa, vermilion of the lips, the parotid gland, the male prepuce, and the female genital system [7, 14]. In the latter, sebaceous glands seem to be more or less consistently present on different areas of the vulva, e.g. on the medial surface of the labia majora, the medial and lateral surfaces of the labia minora, or on the clitoris. The glands were also found to be abundant on the mons pubis and in the genitocrural folds [7]. However, their presence in the cervical and the vaginal mucosa is extremely rare, and since the first report

by Nicholson [9], very few cases have been described in English literature [1–6, 8, 10–13, 15–16]. The current study presents a new case of this unusual finding in the ectocervix.

CASE PRESENTATION

In April 2005, a 46-year-old woman, gravida II, para II (last pregnancy in 1984), was admitted to the Gynaecological Unit of the Rail District Hospital in Lublin for a planned total hysterectomy with bilateral salpingo-oophorectomy for uterine myomas. The tumours were diagnosed on the basis of routine gynaecological and sonographic examinations. Furthermore, a mild uterine prolapse was also found. Laboratory studies revealed hypochromic microcytic anaemia (RBC 3.86 M/ μ L; HGB 7.1 g/dL; MCV 59 fL; MCHC 31 g/dL; iron level 26 μ g/dL). Her past medical and family histories were unremarkable. Post-operative complications were not observed.

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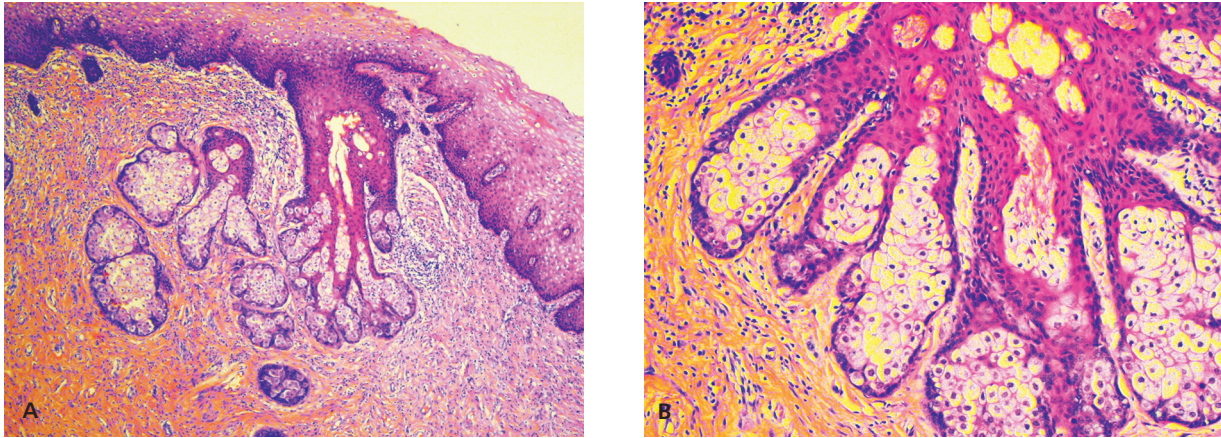


Figure 1. Sebaceous glands in the ectocervix. Mature glands of typical morphology with excretory ducts lined by squamous cells open directly to the surface epithelium (haematoxylin and eosin; objective magnification; **A.** 5×; **B.** 10×).

A histological examination of routine samples taken from the surgical specimen confirmed the presence of one subserosal and two intramural leiomyomas of the uterine corpus, 1–4 cm in size. In addition, simple endometrial hyperplasia and minute follicular cysts of both ovaries were also found. An examination of samples from the uterine cervix unexpectedly revealed the presence of three mature sebaceous glands located in the ectocervix, about 0.5 cm from endocervical glands of the transformation zone (Fig. 1). The glands were composed of large sebaceous cells forming the acini surrounded by the single germinative layer. The excretory ducts lined by squamous cells opened directly to the cervical surface. The squamous epithelium covering the ectocervix exhibited mild acanthosis with a few epithelial pegs located in close vicinity to the sebaceous glands. Sparse lymphocytic infiltration of the cervical stroma was also noted. Neither hair follicles, nor keratinisation of surface epithelium was observed.

DISCUSSION

The origin of sebaceous glands, which are occasionally together with hair follicles, rudimentary hairs, or sweat glands in the uterine cervix, remains a topic of speculation [1, 2, 6, 10, 11]. It may represent the metaplastic response of ectocervical epithelium to prolonged irritation. However, congenital anomaly cannot be excluded [5, 7, 8, 16]. The former hypothesis has long been suggested because the above-mentioned ectoderm-derived structures were usually found in cervixes with features of chronic inflammation, frequently preceded by uterine prolapse, repeated ectocervical biopsies, partial cervical amputation, or en-

docervical polyp formation [9, 11, 15, 16]. Many reported cases of marked acanthosis and hyperkeratosis of otherwise unkeratinised ectocervical squamous epithelium have also been noted, justifying the term “epidermoid metaplasia” applied by some authors [1, 8, 11]. In a detailed histological evaluation of three cases, followed by immunohistochemical reaction for cytokeratine 13, Sieinski and Zegadlo-Mylik [13] suggested that sebaceous glands are formed by metaplasia of cytokeratine 13-negative cells derived from basal cells located in the areas of immature acanthosis of the superficial squamous epithelium. This is in agreement with current observations: the sebaceous glands have developed in the regenerative squamous epithelium of the ectocervix rather than in the metaplastic epithelium of the transformation zone [13]. The latter hypothesis concerning sebaceous gland appearance in the ectocervix postulates derivation from misplaced ectodermal embryonic precursors, or similar embryologic origin of the lining epithelium of both the cervix and the vulva, which is known for its abundant sebaceous glands [7, 8].

Regardless of the origin, sebaceous glands sporadically revealed in the ectocervix, are lesions of very limited clinical significance. It should be stressed, however, that one case of rare malignancy — sebaceous carcinoma — in this site was reported, and its association with ectopic sebaceous glands must be considered [17].

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