

Case Reports

Sebaceous glands in the uterine cervix: Two new cases*

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Summary

The authors report on two new cases of sebaceous glands in the uterine cervix. This extremely rare histological observation was found on biopsy specimens of the uterine cervix because of unclear colposcopic findings and of recurrent CIN II. The etiology of this entity is discussed including a brief review of the medical literature.

Key words: Uterine cervix; Sebaceous glands; Ectopy.

Introduction

The occurrence of sebaceous glands in the uterine cervix is a rare microscopic observation. In the medical literature ectopic sebaceous glands in the uterine cervix were described for the first time in 1918 [1]. To our knowledge, a total of 11 reports of this rare entity have been published.

Case Reports

Case 1

A 25-year-old woman, nulla-gravida was operated on for malignant teratoma of the left ovary at the age of 15, followed by chemotherapy. Metastases were excluded one year after the chemotherapy. Since then she has undergone yearly gynecological check-up's under hormonal contraception (estrogen-gestagen-combination). Now 10 years later, a routine colposcopic examination has shown a mild tumefaction (1 cm in diameter) of the posterior lip of the ectocervical mucosa. There were no anomalies in the vulvo-vaginal canal. The uterus was of normal size. Both adnexal areas were free of pathological findings. Vaginal ultrasound showed normal aspects. Colposcopically, the portio was lined with an hyperkeratotic squamous epithelium. Furthermore a small micropapillary area reflected as a whitish zone in the acid test was detected. After the application of Lugol's solution this zone was iodine-negative including an inhomogeneous region in the center. A biopsy at this suspicious zone of the cervical posterior lip was performed. A biopsy specimen was taken and submitted to histological processing after 4%-formalin fixation. Histological sections, 5-µm thick, were stained with Hematoxylin-Eosin (H-E). Histologically, the ectocervix is covered by stratified squamous epithelium. Heterotopic sebaceous glands are located in the stroma. Some glands are surrounded by lymphocytes and histiocytes (Figure 1).

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Case 2

A 42-year-old woman who had had two spontaneous deliveries showed recurrent HPV-induced CIN-lesions in several Pap smears. Due to the occurrence of CIN-grade II in the cytology, biopsies at the anterior and posterior lip of the uterine cervix were performed. Except for the recurrent CIN lesions, the patient showed no other complications. The clinical gynecological examination revealed a normal status; colposcopy showed a small transformation zone with several nabothian cysts at the uterine ectocervix but no major pathology. Vaginal ultrasound showed a normal uterine cervix and corpus with normal proliferative endometrium, and both adnexal regions were without pathology. The left and right ovary were of normal size and structure. In the histopathological examination of the biopsy specimen sebaceous glands with a characteristic differentiation were found. These lobular formations were located in the lamina propria. The squamous epithelium showed a focal acanthosis and hyperkeratosis (Figure 2).

Discussion

Heterotopias in the uterine cervix reflect a various spectrum in microscopic examination. Well known is the occurrence of cartilage, striated muscle fibers, melanocytic nevi ("blue nevus"), endometriosis and neuroglial tissue [2-6].

As pathologic curiosities of the uterine cervix there are reports of true epidermization of the cervical mucosa. In these instances sebaceous glands, hair follicles and sweat glands are found [1, 7-12]. Heterotopic respectively ectopic sebaceous differentiated glands can occur in the parotid as well as the submaxillary glands, buccal mucosa and in the esophagus [13-20].

The presence of sebaceous glands in the uterine cervix is difficult to explain.

In general, these ectodermally derived structures are appendages of the epidermis. However, the uterine cervix is a mucous membrane of mesodermal derivation. In the etiology two hypotheses have been proposed:

– It is conceivable that squamous epithelium under certain circumstances, such as chronic inflammation or

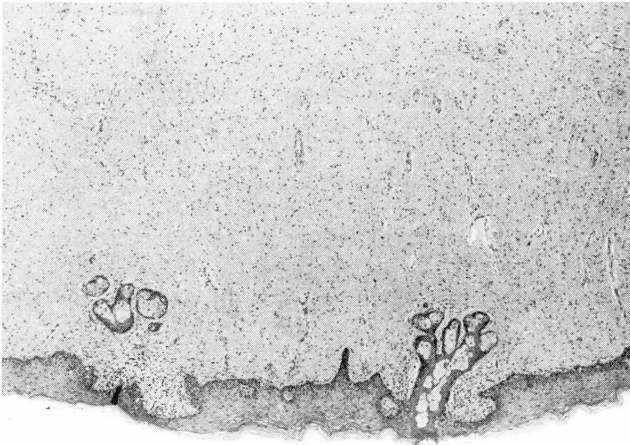


Fig. 1

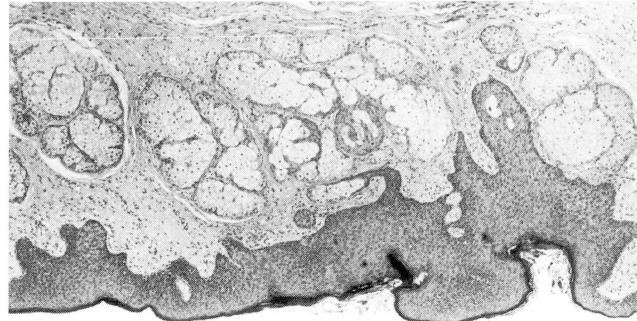


Fig. 2

Figure 1. — Histological aspect of the uterine cervix: The ectocervix is covered by stratified squamous epithelium. Heterotopic sebaceous glands are located in the stroma (Hematoxylin & Eosin stain, x 80).

Figure 2. — Another histological aspect of sebaceous formations in the uterine cervix consisting of typical lobulated glands. The squamous epithelium presents a focal acanthosis and hyperkeratosis (Hematoxylin & eosin stain, x 120).

after surgical trauma (curettage), can form appendages including sebaceous glands [7, 21]. In the salivary glands, this anomaly can be caused by a sebaceous metaplasia of the columnar epithelium bordering the intermediary canals as these canals are of endodermal origin [13].

— Furthermore, the histogenesis can be referred to ectodermic embryonal germs which come in the ectopic site following abnormal cephalic migration [22]. The congenital etiology is supported by observations with ectopic ectodermal structures (sebaceous glands and numerous hair follicles) in the stroma of an otherwise normal cervix [23, 24].

The findings of ectopic sebaceous glands alone has no clinical significance and they should not be confused with a malignant mixed mesodermal tumor. However neoplasms of the pilo-sebaceous structures could arise in ectopic sites and, because of their rarity, might be underdiagnosed [22, 23]. Fifteen years ago the first case of keratinizing squamous cell carcinoma of the uterine cervix with differentiation towards dermal adnexal structures was reported [25]. Sebaceous glands mimicking areas were observed in clear cell adenocarcinoma of the uterine cervix. It is to be noted that sebaceous carcinoma is an uncommon neoplasm that usually arises in the head and neck region [26–29]. Recently a case of sebaceous carcinoma of the uterine cervix in a 25-year-old woman with a fatal outcome was published [30].

Our two patients with ectopic sebaceous glands in the uterine cervix had no signs of malignancy. However, gynecologists and histopathologists should be aware of ectopic sebaceous glands with possible malignant transformation.

Conclusion

The occurrence of sebaceous glands in the uterine cervix is a rare microscopic finding. These ectopic ectodermal structures alone have no clinical significance but should not be confused in the diagnosis with malignant tumors.

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