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Pathology

Epidermalisation of Cervix with Presence of Sebaceous Glands –An Unusual Finding

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Abstract **Case Report**

Background: Sebaceous glands have been an extremely rare finding in female genital tract except in vulva. Tendency of the cervical and vaginal epithelium to undergo reactive changes in the form of adenosis, squamous hyperplasia, hyperkeratosis and parakeratosis are known to occur commonly. Uterine prolapse has also been an important etiological factor for such reactive changes. However, presence of ectodermal appendages like sebaceous glands is quiet uncommon in cervix and origin of this remains a topic of speculation. ***Case History*:** We present a case of 54 year old female with incidental microscopic presence of ectopic sebaceous glands in ectocervix. ***Discussion:*** It is difficult to clarify that whether the presence of sebaceous glands in cervix represent misplaced embryonal tissue or it is a metaplastic process. The latter is favoured as a response to prolonged irritation or chronic injury.
Keywords: Cervix, Epidermalisation, Sebaceous glands.

INTRODUCTION

Sebaceous glands are normally present in majority of regions of the skin except in palms and soles. They are usually associated with hair follicles, forming pilosebaceous units. However, so called 'ectopic' or "free" sebaceous glands are sometimes found in oral cavity (Fordyce spots), nipple (Montgomery tubercles), parotid gland, esophagus and penis [1, 2]. In female genital tract, sebaceous glands are frequently present in different areas of vulva, mons pubis and in genitocrural folds [2]. Their presence in cervical mucosa is very unusual and only few cases have been described in literature. Nicholson firot described sebaceous glands in the cervix and there have been various subsequent publications describing sebaceous glands in cervix [2-17]. Here, we present a new case of this unusual finding in the ectocervix.

CASE PRESENTATION

A 54 year old lady presented with dysfunctional uterine bleeding. The diagnosis of subserosal fibroids with endometrial polyp was made ultrasonographically. Panhysterctomy was performed and specimen was sent for histopathological examination. On gross examination of the specimen, cervix appeared unremarkable. A large subserosal leiomyoma and adenomyosis with a benign endometrial polyp were noted. Microscopically, ectocervix showed presence of mature sebaceous glands (Figure 1).The glands were composed of lobules of mature sebocytes lined peripherally by a layer of flattened basophilic cells, i.e a germinative or basal layer. The excretory ducts lined by squamous cells were connected directly to the overlying ectocervical epithelium (Figure 2). The ectocervical stratified squamous epithelium appeared hyperplastic (Figure3). Adjacent to the sebaceous glands, focal moderately dense lymphoplasmocytic inflammatory infiltrate and foci of squamous metaplasia were also noted. (Figure 4 and Figure 5.) Hair follicles were not observed in the sections studied.

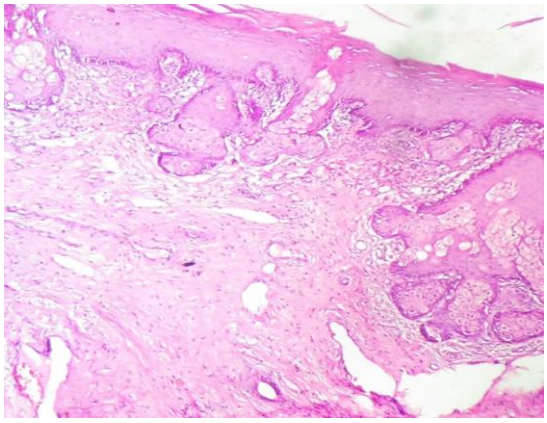

Fig-1: Mature sebaceous glands in ectocervix (100X)

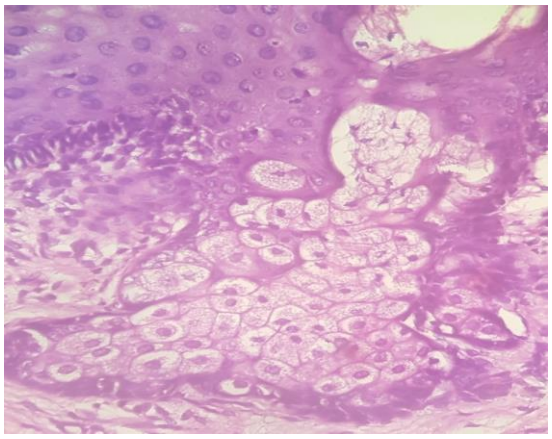

Fig-2: Lobules of mature sebocytes connected directly to overlying ectocervical epithelium (400X H& E)

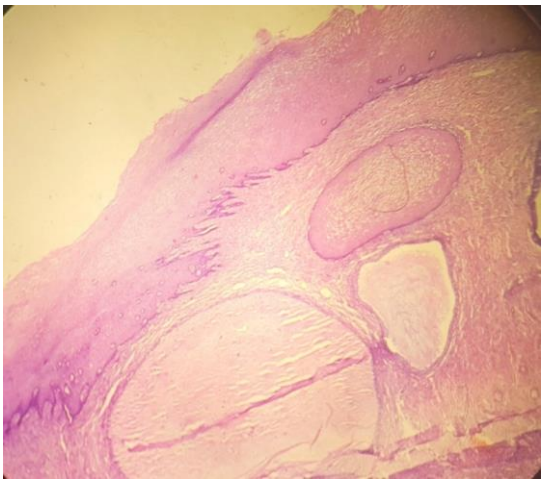

Fig-3: Hyperplastic ectocervical squamous epithelium (100X)

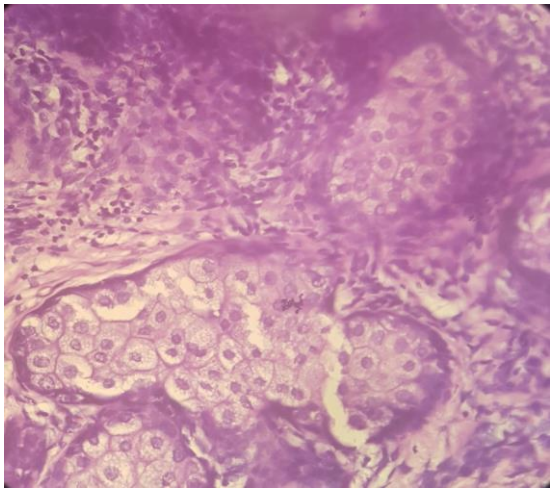

Fig- 4: Lymphoplasmacytic inflammatory infiltrate surrounding the sebaceous glands (400X)

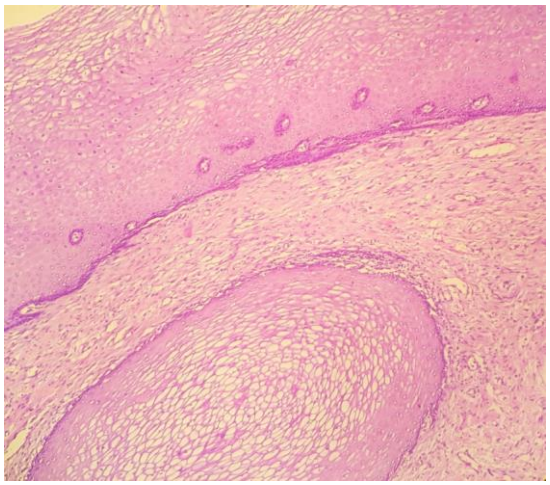

Fig-5: Foci of squamous metaplasia in the adjacent areas of ectocervix (400X)

DISCUSSION

Origin of sebaceous glands, which occasionally may be together with hair follicles, rudimentary hairs or sweat glands in the uterine cervix, remains an unsolved dilemma [5-7, 9, 13]. Prolonged irritation eliciting a metaplastic response or misplaced embryonal tissue or a congenital anomaly are the possible explanations [1, 14, 15, 18]. Hence this remains a topic of speculation. Formerly, it was hypothesized that, sebaceous glands are usually found in cervices with features of chronic inflammation, usually preceded by uterine prolapse, partial cervical amputation or endocervical polyp formation [2, 7, 10, 18]. The ability of the cervix and vagina to undergo metaplastic change in response to trauma, irritation or inflammation after local therapy is well known [9, 10, 15]. Many reported cases had marked hyperkeratosis and acanthosis of ectocervical epithelium, which justifies the term 'epidermoid metaplasia' used by some authors [7, 13, 15]. Some authors like Kazakov *et al.* [19] believe that presence of mantle structures around hair follicles in the cervix gives strong support to this hypothesis .It is also argued that both theories are possible. In present case, microscopically squamous hyperplasia was noted in ectocervical epithelium. Along with that, the sebaceous glands were surrounded by mantle of lymphoplasmacytic inflammatory infiltrate and foci of squamous metaplasia. These findings support theory of it being a metaplastic process in response to prolonged irritation rather than misplaced embryonal tissue or congenital anomaly. The histomorphology of these sebaceous glands is similar to glands normally present in skin. Sebaceous glands in ectocervix may be visible grossly in the form of small yellow nodules or well defined lesions [3, 15] However, majority of the cases are incidental findings on microscopy with unremarkable gross or colposcopic examination [20]. Our case was also grossly unremarkable with incidental finding of presence of sebaceous glands in ectocervix on histopathological examination.

Regardless of the origin, presence of sebaceous glands in ectocervix has very limited clinical significance. However, a rare case of sebaceous carcinoma of cervix has been reported and authors stated that the tumor may have arisen from ectopic sebaceous glands in cervix [21].

CONCLUSION

Epidermalisation of cervix with presence of sebaceous glands is a rare observation in hysterectomy specimens. Origin of this lesion is quite unclear, though many authors think this phenomenon as metaplastic process rather than a developmental abnormality.

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