Case Report

Anal Papilloma: An Exceptional Presentation of Fibrocystic Disease in Anogenital Mammary-Like Glands

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Previously ectopic breast tissue was thought to be derived from the caudal remnants of the primitive embryonic milk ridges; anogenital mammary-like glands are presently considered as normal constituents of the anogenital region. We report a case of young female, who presented with an anal papilloma. Histopathological examination revealed extensive fibrocystic changes in anogenital mammary-like glands. To date, a lot of benign changes and a wide range of benign and malignant neoplasms have been reported in these glands. However, extensive fibrocystic change of these glands in anal region is very rare. In addition, fibrocystic disease of anal mammary glands, masquerading clinically as an anal papilloma, has not been reported in literature. Hence, it is essential for clinicians and the pathologists to be aware of such a rare presentation. The features of fibrocystic disease in perianal region are also discussed.

1. Introduction

In anogenital region, mammary type glands constitute a normal component and are referred to as anogenital mammary-like glands (AGMLG) [1, 2]. These glands share several features in common with normal breast tissue like expression of estrogen and progesterone receptors [3]. Nonneoplastic lesions, benign, and malignant neoplasm arising in AGMLG are also similar to those arising in the breast. We report a case of young female, who presented with an anal papilloma on clinical examination, and the final histopathological evaluation revealed extensive fibrocystic changes (FCC) in the AGMLG.

2. Case Report

A 26-year-old female presented to the surgical outpatient department of our hospital with complaints of swelling in the anal region of one-year duration. Anal examination revealed a firm mobile mass at 3 o’clock position. Perrectal examination was normal and the clinical diagnosis was that of an anal papilloma. Excision biopsy of the papilloma was performed and the specimen was received in our pathology department in 10% neutral buffered formalin. Gross examination revealed a skin covered polypoidal mass measuring 3.5 × 2.5 cm. External surface was smooth (Figure 1(a)). Cut surface was gray white, firm, and lobulated with a focal tiny cyst measuring 0.5 cm in greatest dimension (Figure 1(b)). Routine histopathological examination of hematoxylin and eosin stained slides revealed skin with unremarkable epidermis and subepithelial tissue showing mammary-like glands composed of terminal duct lobular units (Figure 2(a)). The ducts were lined by bilayered epithelium, inner cuboidal epithelium, and outer myoepithelial cells (Figure 2(b)) with many of them exhibiting features of fibrocystic disease like adenosis (Figure 2(c)), cystic change (Figure 2(d)), apocrine metaplasia showing abundant eosinophilic cytoplasm with apical snouts (Figure 2(d), inset), and fibrosis in stroma.
Figure 1: Gross appearance. (a) Smooth external surface of the polyp. (b) Cut surface is gray white, firm, and lobulated with cystic spaces.

Figure 2: Microscopic appearance. (a) Anal skin with subepithelial tissue showing terminal duct lobular units. H&E 40x. (b) Ducts lined by bilayered epithelium. H&E 100x. (c) Areas of adenosis. H&E 40x. (d) Areas of cystic change. H&E 100x. (Inset, apocrine change with apical snouts, H&E 400x).

3. Discussion

Ectopic breast tissue (EBT) may be present at any site along the primitive embryonic milk lines, extending from the axillary to the inguinal region [4]. Mammary type glands were reported in vulva by Hartung in 1872; these were for long considered as EBT representing the caudal remnants of the milk ridge [2]. But EBT can also be seen in anogenital regions or other unusual sites such as eyelid, nasal area, prostate gland, and gallbladder [5], which cannot be explained by
Anogenital mammary-like glands can undergo changes analogous to that of FCD of the breast including cystic change, periductal fibrosis, and apocrine metaplasia. FCD in AGMLG can have a wide range of microscopic features depending upon the predominant element of the disease [9]. However, the crucial histopathological alterations include cystic change, fibrosis, apocrine metaplasia, calcification, epithelial hyperplasia, and chronic inflammatory infiltrates. Similar to that of the mammary tissue, FCD-like changes can be seen focally in other lesions arising in the anogenital mammary-like glands [9].

4. Conclusion
To conclude, we report a case of fibrocystic change in anogenital mammary-like glands presenting as an anal papilloma. These clinically innocuous changes may however lead to potential diagnostic pitfalls and hence clinicians and pathologists should be aware of such possibilities.

 Consent
The patient described in the case report has given her informed consent for the case report to be published.

Conflict of Interests
The authors declare that there is no conflict of interests regarding the publication of this paper.

References


