

Ectopic breast tissue presenting as an anal polyp

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Mammary glands begin developing during the sixth week of embryogenesis and extend as 2 surface thickenings from the axillary to inguinal regions.¹ At 2–3 months' gestation, these thickenings develop further as mammary ridges. Supernumerary breasts or nipples, polymastia and polythelia respectively, occur in 1%–2% of the general population.^{2–4} They may arise anywhere along the mammary ridges, developing from extramammary buds or, more rarely, from tissue that was displaced from these ridges.¹ We report a case of an unusual anal polyp presenting as an intermittently prolapsing lesion. The pathological features were those of breast tissue.

Case report

A 46-year-old woman presented with an 8-month history of an intermittently prolapsing anal lesion (Fig. 1), which caused discomfort and worsened during bowel movements. The patient's medical history was significant for adenomatous polyps, irritable bowel syndrome, diverticular disease, endometriosis and ovarian mucinous cystadenomas. She had a family history of colorectal carcinoma.

Examination revealed a large, soft, mobile, cystic lesion on the right posterior aspect of the anal canal. Clinically, a hemorrhoid was suspected, but the cystic nature of the mass was unusual. The lesion was surgically excised.

Gross examination revealed an irregularly shaped tan polyp, measuring 2.5 cm in greatest dimension. Sectioning revealed pink-tan tissue with a cystic component containing clear fluid. Microscopic examination showed a polypoid fragment of tissue lined on the outer aspect by squamous epithelium with focal hyperkeratosis and parakeratosis (Fig. 2). Within the core of



FIG. 1. Clinical photograph, anal polyp.

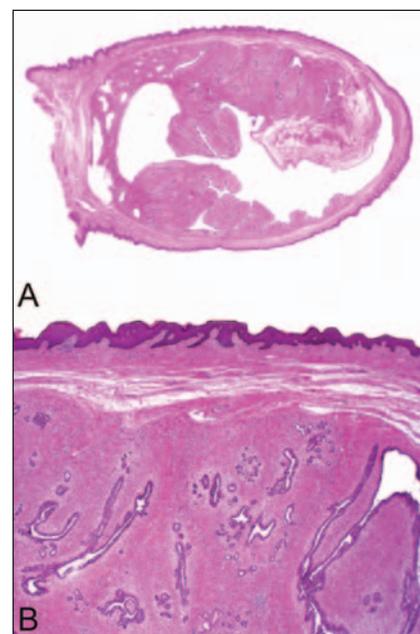


FIG. 2. A: Excised anal polyp (hematoxylin-eosin stain; whole mount). B: Higher magnification shows mammary ducts and lobules (hematoxylin-eosin stain; original magnification 20 ×).

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Presented at the 55th Annual Meeting of the Canadian Association of Pathologists, Montréal, July 3–7, 2004.

Accepted for publication July 19, 2006

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Note de cas

the polyp, there were mammary ducts and lobules with focal apocrine metaplasia (Fig. 2). Many of the ducts were cleft-like and dilated, imparting a fibroadenomatoid appearance. Some of the duct epithelium showed mild epithelial hyperplasia. The stroma was not hypercellular, and there was no evidence of malignancy. Features of hidradenoma papilliferum were absent. Immunohistochemical testing demonstrated diffuse positivity for cytokeratin 7 and progesterone receptor protein within the epithelial cells and focal positivity for estrogen receptor protein. The pathological features were those of breast tissue.

Discussion

To the best of our knowledge, this is the first documented case of ectopic breast tissue arising in the anus and presenting as an anal polyp. Ectopic breast tissue has been reported in the axillae and vulva, and

less commonly in the buttock, neck, face, flank, arms, hips, shoulders and back.^{2,5} Such findings occur as a result of either extramammary buds along the primitive milk line or aberrant tissue located outside the milk line.¹ We believe that the ectopic tissue in this report represents a remnant from the developing milk line.

Ectopic breast tissue may become more pronounced owing to hormonal changes during puberty and pregnancy and is subject to the same pathologic disorders that can affect normally positioned breasts, including reactive changes, benign neoplasms and malignant lesions.⁵ In our case, there were fibrocystic changes but no other complications. Polythelia has been linked to multiple endocrine neoplasias, and cardiovascular, central nervous system, vertebral, gastrointestinal and urinary tract abnormalities,^{2,3} none of which were present in our patient or her family.

Competing interests: None declared.

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