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Pericoccygeal Hidrocystoma

Shy-Chyi Chin, Cheng-Yu Chen, and Robert A. Zimmerman

Summary: We report the imaging findings of pericoccygeal hidrocystoma in a 52-year-old woman. Sonography showed a large cystic lesion with internal echoes in the pericoccygeal region; it appeared as a well-defined, low-density mass on CT, and as a high-signal-intensity mass on T1- and T2-weighted MR images. Histopathologic examination revealed an apocrine hidrocystoma.

Hidrocystoma is a cystic tumor originating from a dilated sweat gland. The tumor is typically small and located predominantly on the face, particularly in the periorbital regions. Large cystic hidrocystomas in the pericoccygeal region may mimic other more common entities, such as neurogenic tumors, inclusion tumors, or meningoceles.

Case Report

A 52-year-old woman had a mass over the coccygeal region that had enlarged progressively for 20 years and then recently increased rapidly in size. On physical examination, the tumor appeared as a soft, tender, palpable mass over the sacral region. There was no dimple, hyperpigmented patch, hairy nevus, or vascular lesion on the lower back. Results of routine laboratory studies were normal. Sonography revealed a subcutaneous cystic mass in the lower back region, posterior and inferior to the coccyx, with anterior extension to the presacral space (Fig 1A). Computed tomography (CT) showed a fluid-containing cystic mass in the pericoccygeal region, without bone involvement (Fig 1B). The tumor appeared as a lobulated hyperintense mass on all magnetic resonance (MR) pulse sequences (Fig 1C and D) and did not enhance after intravenous injection of contrast material.

At wide excision of the tumor, a clear, colorless fluid was noted within the cystic mass. Histopathologic examination revealed a cystic mass lined by two rows of flat cuboidal epithelium, suggesting an apocrine hidrocystoma (Fig 1E). Some mildly dilated sweat glands were noted within the dermis. Clinical follow-up 1 year later showed no evidence of tumor regrowth.

Discussion

Hidrocystoma usually appears as a solitary mass on the face. The pathogenesis is unclear; however, the

lesion is generally thought to arise from a cystic dilatation of sweat glands that are lined by one or two rows of epithelium, which are contiguous with the skin's surface with no intervening fat planes. Connection with an epidermoidal sweat duct is not observed. There are two types of hidrocystomas: the apocrine and the eccrine types. The former is characterized by papillary projections lined by columnar epithelium. These cells show decapitation secretion, characteristic of apocrine glands. The latter is lined by two layers of cuboidal epithelial cells. There is no reported association with congenital abnormalities, inheritance, or sex predilection in hidrocystomas (1).

We have been unable to find any reports describing a hidrocystoma in the pericoccygeal region. In our case, the tumor presented as a dumbbell-shaped, well-demarcated cystic mass adherent to the skin. On MR images, this cystic mass was of homogeneous hyperintensity on all pulse sequences and did not enhance after intravenous injection of contrast material. The cyst showed no communication with the thecal sac on multiplanar MR images.

The imaging differential diagnosis of pericoccygeal masses includes caudal spinal anomalies (terminal myelocystoceles and anterior sacral meningocele), inclusion tumors (epidermoid and dermoid), and teratoma. The absence of a connection between the cystic mass and the spinal contents excludes the possibility of caudal spinal anomalies (2, 3). Although epidermoids and dermoids may appear as high-signal-intensity cysts on both T1- and T2-weighted images in this region, they are frequently associated with dorsal dermal sinuses or tracts that connect the thecal sac, spinal cord, and/or skin surface (4, 5). Solid epidermoid tumors are usually isointense or only slightly hyperintense relative to CSF on MR images (6, 7). Dermoids may show variable intensities without a homogeneous fatty signal. Sacrococcygeal teratomas often appear as large, well-encapsulated masses with both solid and cystic portions that are heterogeneous

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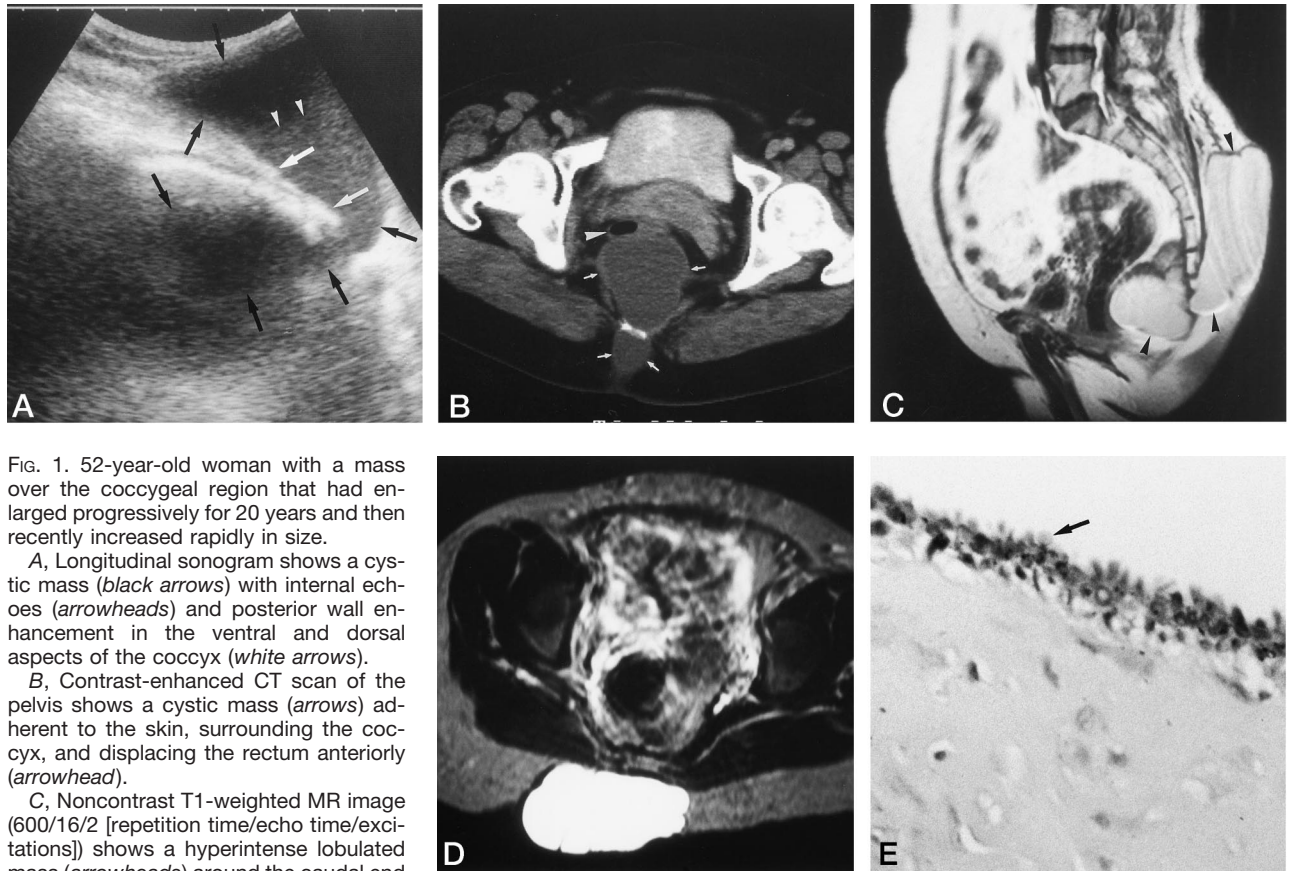


FIG. 1. 52-year-old woman with a mass over the coccygeal region that had enlarged progressively for 20 years and then recently increased rapidly in size.

A, Longitudinal sonogram shows a cystic mass (black arrows) with internal echoes (arrowheads) and posterior wall enhancement in the ventral and dorsal aspects of the coccyx (white arrows).

B, Contrast-enhanced CT scan of the pelvis shows a cystic mass (arrows) adherent to the skin, surrounding the coccyx, and displacing the rectum anteriorly (arrowhead).

C, Noncontrast T1-weighted MR image (600/16/2 [repetition time/echo time/excitations]) shows a hyperintense lobulated mass (arrowheads) around the caudal end of the coccyx.

D, The mass was hyperintense on axial T2-weighted MR image (2200/90/2).

E, Secretory droplet (arrow), which appears to be pinched off from the superficial aspect of the columnar cells (decapitation secretion), is characteristic of apocrine hidrocystoma (hematoxylin-eosin, original magnification $\times 400$).

in signal intensity on MR images (8). In our cyst, the high T1 and T2 signal intensity was most likely due to a collection of obstructed proteinaceous fluid (9) in the dilated apocrine gland.

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