

UMBILICAL POLYP ORIGINATING FROM URACHAL REMNANTS*

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SUMMARY: Oğuzkurt P, Kotiloğlu E, Tanyel FC, Hiçsönmez A. (Department of Pediatric Surgery, Hacettepe University Faculty of Medicine, Ankara, Turkey). An umbilical polyp originating from urachal remnants. Turk J Pediatr 1996; 38: 371-374.

Umbilical polyp is a rare disorder of the umbilical region in childhood. It is said to be the result of incomplete closure of the omphalomesenteric duct and presents as a red, moist umbilical mass after separation of the umbilical cord. Umbilical polyp originating from the urachus has not previously been reported. A 10-year-old boy with an umbilical polyp related to the urachus is presented to stress the possibility that umbilical polyps can originate not only from the omphalomesenteric duct but also from urachal remnants. *Key words: umbilical polyp, urachus remnant, omphalomesenteric duct.*

In general surgical practice, umbilical pathologies such as umbilical granuloma and hernia are frequently encountered among children. Contrary to other umbilical pathologies, umbilical polyp, which is the result of incomplete closure of the omphalomesenteric duct (OMD), is rare in childhood^{1,2}. A patient with an umbilical polyp proven to be related to the urachus is reported to stress the possibility that other umbilical-related remnants may also cause umbilical polyps.

Case Report

A 10-year-old boy was admitted because of an umbilical mass which was first noticed three years before admission. There were no additional and/or preceding complaints such as discharge or pain.

Physical examination revealed a sessile mass one centimeter in diameter lined by slightly vascular, smooth skin protruding from the lower edge of the umbilicus.

The results of routine laboratory investigations including complete blood count, urinalysis and blood chemistry were within normal limits.

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The patient underwent an operation through a circular incision around the neck of the polyp. A tract running from the base of the polyp towards the urinary bladder close to the peritoneum was noticed. The polypoid mass and the tract were totally excised, including the connection to the bladder (Fig. 1). There was no relation to the intraperitoneal structures. Histological examination of the polypoid mass revealed a cystic structure lined by stratified squamous epithelium and containing keratinous material (Fig. 2). The tract was lined by a layer of cuboidal epithelium surrounded by a muscular layer that corresponded to the urachus (Fig. 3). The patient's postoperative course was uneventful, and he was free of signs and symptoms a year after surgical intervention.



Fig 1: Surgical specimen of the umbilical polyp with its extension to the urinary bladder.

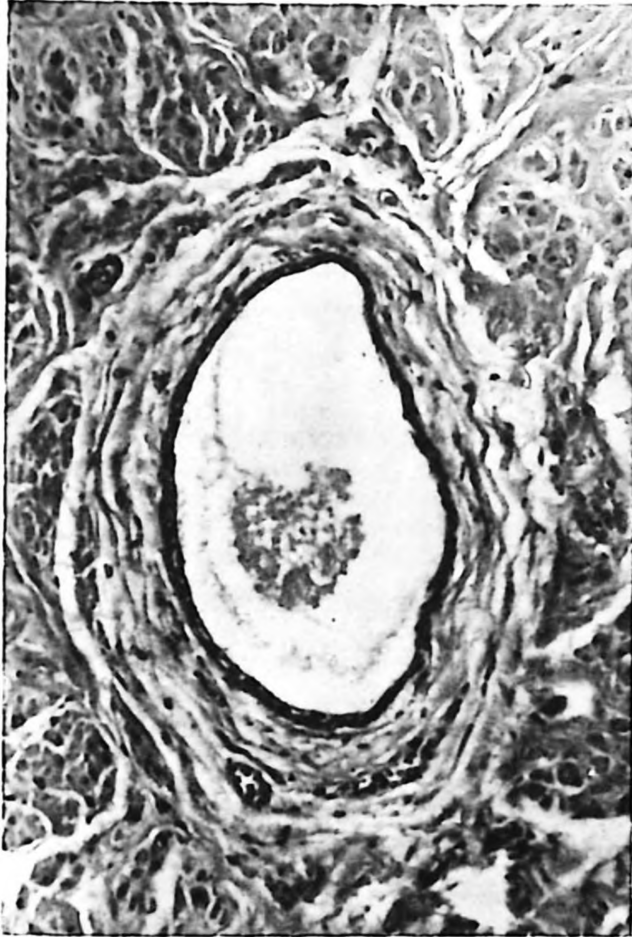


Fig. 2: The polyp was lined by stratified squamous epithelium containing keratinous material (original magnification x 20).



Fig 3: The cuboidal epithelium with a muscular layer around it lining the tract (original magnification x 10).

Discussion

By definition, a polyp is a protruding mass of swollen and hypertrophied mucous membrane caused by chronic inflammation or neoplastic growth. Umbilical polyps are reported to be a remnant of the OMD and may contain small bowel mucosa, gastric or colonic mucosa or, rarely, pancreatic tissue with or without connections to intraabdominal organs¹⁻⁵. They are to be differentiated from exuberant proliferation of granulation tissue which represents granuloma pyogenicum⁵. If a red, moist lesion at the umbilicus persists after several applications of silver nitrate, it is likely to be an umbilical polyp^{1,2,4}.

Despite the classical definition of umbilical polyp, the polypoid mass in the presented case was covered by skin.

Two embryological vestiges may be related to cyst formation in the umbilical cord-the allantoic diverticulum and the OMD, although in most instances these structures can be identified only by microscopic examination. The allantoic diverticulum or duct is frequently identified if the umbilical cord is sectioned close

to its fetal attachment. It may or may not have an identifiable lumen and is lined with flattened, cuboidal transitional epithelium⁶.

To the best of our knowledge, no umbilical polyp related to the urachus has previously been reported in the English language literature. It is apparent from the reported case that incomplete closure of the urachus, similar to incomplete closure of the OMD, may cause umbilical polyp. Therefore, umbilical polyp should be evaluated not only for OMD but also for urachal relations.

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