## Appendicoumbilical Fistula, a Cause of an Umbilical Mass With Drainage

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2-month-old boy was referred with an umbilical granuloma treated with silver nitrate without involution. A firm red mass  $1.3 \text{ cm} \times 0.5 \text{ cm}$  protruding from the umbilicus was seen; gas and intestinal contents were secreted through the tip of the mass, establishing the diagnosis of an umbilical polyp (Fig. 1). During surgery, we found that the polyp was the tip of the vermiform appendix. Appendectomy was performed with good results (Fig. 2).

This mass was a terminal appendicoumbilical fistula, which consists of failure of re-entry of the appendix resulting in abnormal fixation of the umbilical cord and a mobile cecum (1).

The most frequent umbilical mass in neonates is the umbilical granuloma followed by the umbilical polyp. The umbilical granuloma is excess granulation tissue at the base of



**FIGURE 1.** Intestinal drainage through the tip of the umbilical mass.

Received November 18, 2011; accepted December 30, 2011.

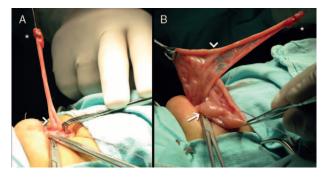
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The authors report no conflicts of interest.

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DOI: 10.1097/MPG.0b013e3182491483



**FIGURE 2.** (A) Dissection of polyp that is continuous with the intestine; (B) Polyp identified as the tip of the appendix with its base attached to the cecum. Asterisk: polyp, arrowhead: base of the appendix attached to the cecum, arrow: terminal ileum.

the umbilicus after umbilical cord separation, which responds to silver nitrate (2-7). The umbilical polyp is a rare congenital lesion resulting from persistence or outgrow of gastrointestinal mucosa of the omphalomesenteric duct retained in the umbilicus. It does not respond to silver nitrate (8).

If a polyp is diagnosed, fistulography or ultrasound can confirm communication to the bowel. An appendicoumbilical fistula should be considered in the differential diagnosis of an umbilical mass with drainage.

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