Successful endoscopic submucosal dissection of a large juvenile polyp in the stomach of an infant

► **Fig. 1** Enhanced abdominal computed tomography showing a 4.2-cm mass of mixed density in the stomach of a 5-month-old male infant.

► **Fig. 2** Gastroscopy revealing a polyp-like mass in the posterior wall of the upper stomach.

► **Fig. 3** Clear surface of the wound after dissection of the mass from the stomach.

► **Video 1** Endoscopic submucosal dissection in a 5-month-old infant.

► **Fig. 4** The resected polyp (as reassembled), measuring 4.2 × 3.0 cm.

► **Fig. 5** Histopathological characteristics of the solitary juvenile polyp, which presented a marked increase in the stromal cell compartment with predominant smooth muscle, distorted and dilated crypts, and inflammatory changes in the lamina propria (H&E staining).

A 5-month-old male infant suffered from massive upper gastrointestinal bleeding that resulted in a hemoglobin level of 48 g/L when he was referred to our hospital. A 4.2-cm mass of mixed density was detected in the stomach by enhanced abdominal computed tomography (► **Fig. 1**). No family history of polyposis was recorded and there were no dark spots on the lips, hands, or feet. Gastroscopy showed a rounded and smooth-contoured polyp-like mass in the posterior wall of the upper stomach

(► **Fig. 2**). Endoscopic submucosal dissection (ESD) was indicated because of the presence of the large polyp (► **Video 1**). Abundant angiogenesis of the mass led to bleeding during the ESD procedure. Coagrasper hemostatic forceps were used for hemostasis. After the polyp had been resected from the stomach (► **Fig. 3**), the mass was cut into small pieces with a hook knife and the pieces were taken out individually with a

snare (► Fig. 4), because the mass was too large to pass through the cardia whole. Finally, the incision was closed with clips. Histopathological examination of the mass revealed characteristics of hamartomatous polyps that presented as a marked increase in the stromal cell compartment with predominant smooth muscle, distorted and dilated crypts, and inflammatory changes in the lamina propria, indicating a solitary juvenile polyp (► Fig. 5). Follow-up gastroscopy performed a month later showed proper wound healing and no residual mass. Solitary juvenile polyps (size range: 3 mm to 2 cm) are common in the colorectum but rarely reported in the stomach, especially in infancy [1]. The patient reported here may be the first and the youngest to present with a large gastric juvenile polyp (4.2 cm). Successful ESD not only resected the large polyp but also preserved the integrity of this infant's stomach [2]. To the best of our knowledge, he is the youngest patient so far to have undergone ESD.

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Competing interests

The authors declare that they have no conflict of interest.

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