

A Case Report on Umbilical Polyp with Meckel's Diverticulum from birth in a 12-year old male child

¹Dr. Purohit Naresh Kumar, ²Dr. Kashish Arora, ³Dr. Jatin G Bhatt, ⁴Dr. J. G. Vagadia

¹Second year resident, ²Third year resident, ³Professor and HOD, ⁴Assistant Professor
Dept. of General Surgery
Pandit Deendayal Upadhyay Medical College and Hospital
Rajkot.

Abstract: The Umbilical polyp is a rare congenital lesion characterised by bright reddish round mass resulting from the persistence of Omphalo-mesenteric duct enteric mucosa at the umbilicus. Meckel Diverticulum (MD) is the most common congenital anomaly of the intestines, with an incidence of 2% of the general population. It can present as various clinical features with complications and be life threatening if diagnosis is delayed and treatment late. However Umbilical Polyp with Meckel's Diverticulum is a very rare presentation. The aim of this article is to report a rare case of Umbilical Polyp with Meckel Diverticulum which was present at birth in a 12-year-old male child.

Keywords: Congenital lesion, Omphalo-mesenteric duct remnant, Umbilical polyp, Meckel Diverticulum.

INTRODUCTION:

The Omphalo-mesenteric duct (OMD), also called the Vitelline or Vitello-intestinal duct (VD/VID), is an embryonic structure which provides communication from the yolk sac to the midgut during fetal development. The natural fate of this structure is spontaneous obliteration, where it separates from the intestine during fifth and ninth weeks of gestation.

Persistence or failure of involution of OMD result in spectrum of congenital anomalies ranging from Umbilical polyp, Meckel's Diverticulum (most commonly seen in 2%-3% of the population), patent VD/OMD, OMD cyst, and persistent congenital fibrous band extending from the umbilicus to the intestine. Umbilical polyp may be difficult to distinguish from an umbilical granuloma, umbilical polyp is usually brighter red, usually slightly larger with diameter of 0.5-2 cm as oppose to 0.1-1 cm of granuloma and it does not respond to conservative treatment with topical silver nitrate.

CASE REPORT:

The patient is a 12-year-old boy, presented with fleshy bright red umbilical mass. He is the first child in the family and was exclusively breast fed with birth weight of 3.0 kg and had complete immunization. This lesion started as a small umbilical nodule which discharges blood, especially on contact. There was no discharge of feces or urine from the mass. General examination showed well built, healthy, not pale, not dehydrated, anicteric male child of 25kg with stable vitals. Abdominal examination showed around 1.5 to 2 cm umbilical nodule with stalk, protruding from the umbilicus. Rest of the abdominal examination was normal. A diagnosis of umbilical polyp was made. Abdominal ultrasound scan shows an approximately 28*10mm sized hyperechoic lesion with evidence of internal vascularity noted at umbilical region, and there is an evidence of approximately 2-2.5 cm long and approximately 6-7 mm wide tubular like structure extending from the above mentioned lesion to the mesentery noted. CECT Abdomen with Pelvis showed a polypoidal soft tissue density minimally enhancing lesion of size 20*17 mm is noted in umbilical region with no definitive evidence of intraperitoneal communication of lesion or patent urachus is seen.



Fig 1. Pre-operative picture of umbilical polyp



Fig 2. CECT Abdomen showing band connecting umbilical polyp with meckel's diverticulum.

Patient was planned for Diagnostic Laparoscopy

Under General Anesthesia, with prophylactic antibiotic given at induction, diagnostic laparoscopy was done. A large band connecting umbilicus and small bowel (ileum) has been noticed.



Fig 3. Intra-operative picture after resection of umbilical polyp



Fig 4. Resected specimen of umbilical polyp

Trocars removed and midline laparotomy vertical incision made at the level of umbilicus extending 1.5 cm above and below the umbilicus and abdomen opened in layers. Excision and ligation of band along with Meckel's Diverticulectomy done and abdomen closed in layers. The post-operative period was uneventful. Patient was discharged on post-operative day 6. Sutures were removed in OPD on the 14th post-operative day. Patient was seen in OPD basis there-after with no any complications.

Histopathology report showed Intestinal tissue and areas of haemangioma formation with dispersed chronic inflammatory infiltrate

Fig 5. Intra-operative picture after resection

Fig 6. Post-operative picture of patient



of Meckel's Diverticulum



Discussion: An Umbilical polyp is not so frequently reported. Gaopande et al., found only one umbilical polyp among 15 cases of umbilical lesions seen from the age of 9 months to 45 years over a 24-month period. Moreover, in a study of 53 cases of all umbilical lesions over a period of 10 years, by Pacilli et al. in Great Ormond Street Hospital, University College London, 13 cases of umbilical polyp were found in infant and children <7 years.

Umbilical anomalies were the second most common manifestation of OMD related malformations. Because of obvious clinical features, these anomalies are picked early by caregivers or physicians. However, careful assessment is required to differentiate them from a variety of anomalies that can occur at this site such as umbilical granuloma, urachal remnants or omphalitis. The common presentation of OMD-related anomalies is umbilical discharge, with POMD being the predominant cause, whereas umbilical polyp is rarely seen. Umbilical polyp is a rare remnant of OMD duct and appears as bright red pedunculated growth coming out of the umbilicus and is often mistaken for umbilical granuloma. In about 15 to 16 % cases Meckel Diverticulum was discovered incidentally. Excision of incidentally discovered Meckel's Diverticulum is a controversial one.

Clinical presentation of umbilical lesions depends on the age of the patient. In the new born, delayed umbilical separation and omphalitis are common while in childhood and among adults, umbilical mass and umbilical discharge or wet umbilicus take precedence. Pacilli et al. reported a discharging polyp in all the 13 cases with associated bleeding in 9 cases as presented in the index case. OMD malformations are found with equal frequency among the sexes, although significantly greater incidence of symptoms is encountered in males.

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