

Mass in the Umbilical Area

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A three-month-old Chinese boy presents with a mass in the umbilical area. The mass increases in size when the infant cries or strains. It can be reduced inside the abdomen by external pressure.

What is your Diagnosis?

An umbilical hernia presents as a soft, skin-covered swelling that protrudes through the fibrous ring at the umbilicus. It is caused by inadequate closing of the abdominal wall during fetal development. A small opening allows the intestine to bulge through. The umbilical bulge becomes more apparent during episodes of crying, coughing, or straining. It is easily reducible with external pressure.

This congenital malformation is typically recognized in the neonatal period and is usually asymptomatic. Complications, such as incarceration, strangulation, perforation of the intestine, and rupture with evisceration are rare in children. Most umbilical hernias resolve spontaneously with time, usually within the first year of life. Rarely, surgery becomes necessary if the hernia becomes incarcerated or strangulated, increases in size after the first year of life, or persists for more than five years. Repair of the hernia at two- to three-years-of-age is advocated by some surgeons if the fascial defect is greater than 1.5 cm in diameter, especially if the edge is thin and sharp.

An epigastric hernia results when the intestines protrude through a gap in the decussating fibers of the linea alba. The hernia usually occurs in the midline above the level of the umbilicus, and only preperitoneal fat herniates through the defect.



Figure 1: Mass in the Umbilical Area

Umbilicus cutis results when the skin in the periumbilical area extends up the sides of the umbilical cord, forming an outpouching after the umbilical cord falls off. In umbilicus cutis, there is no fascial defect, and there is no further protrusion when the infant cries or strains.

An omphalocele is a congenital anomaly of the anterior abdominal wall in which the abdominal viscera herniates through a central defect at the site of the umbilical ring. An omphalocele presents as an umbilical mass covered by a translucent membrane.

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