

Answers to Medical Quiz

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- A1.** Anterior abdominal wall defect, part of the stomach and intestines protruding outside abdominal cavity. Segmental gangrene of small intestine.
- A2.** Intestinal atresia.
- A3.** Gastroschisis.

DISCUSSION

Gastroschisis is defined as a rare congenital anterior abdominal wall defect located to the right side of the umbilicus, any defect greater than 5 cm in diameter is considered as giant gastroschisis¹.

Gastroschisis is due to vascular disruption of the omphalomesenteric artery, resulting in herniation of the intestine or solid organ (liver or spleen without any covering membrane or sac) outside the abdominal cavity in the early embryogenesis. Slight to moderate increased risks were observed in pregnant mothers who smoke cigarettes, use anti-hypertensives and non-steroidal anti-inflammatory drugs. Gastroschisis is usually inherited as autosomal recessive disorder, but also has been observed to be inherited as autosomal dominant disorder^{2,3}.

Gastroschisis is classified into simple and complex according to the presence or absence of associated congenital anomalies and according to the size of the defect. The classification of gastroschisis into simple and complex groups, as defined by Molik et al, provides a method of risk stratification that can predict outcome of these groups of patients⁴.

Current advances in pediatric surgical techniques, neonatal intensive care management and parenteral nutrition have reduced infant mortality rate for gastroschisis from 60% to 3-10%^{5,6}.

Diagnosis of gastroschisis after birth is based mainly on physical examination, which confirms the diagnosis by inspection; the condition can be diagnosed during pregnancy by ultrasound⁶.

The techniques for reducing the viscera and closing the defect consist of primary fascial wall closure or staged operative technique starting with non-operative and followed by delayed operative closure, based on the requirement for a silo covering and general anesthetic^{6,7}.

The survival rate has increased to 90% because of improvement in management of gastroschisis by both pediatric surgeons and neonatologists as well as early diagnosis in the prenatal period⁸.

CONCLUSION

Gastroschisis is a rare congenital anterior abdominal wall defect. This disorder can be simple or complicated and the diagnosis is based on clinical examination after birth or by ultrasound during pregnancy. Surgical repair is the treatment of choice whether primary or secondary closure. The outcome is related directly to the presence of other anomalies and complications of wound closure.

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