Medical Quiz Answers

A1. Plain erect abdominal X-ray, showing dilated left colon and no air in the pelvis.

A2. Aganglionosis (Hirschsprung's disease).

A3. Necrotizing enterocolitis. Intravenous fluid resuscitation, nothing per mouth, rectal irrigation, and broad-spectrum antibiotics.

DISCUSSION

The incidence of complications after pull-through surgery for Hirschsprung's disease could occur in a considerable number of patients and could reach 80%. The most common complications after pull-through are anastomotic stricture, retained aganglionosis, or long obstructing seromuscular cuff. The clinical manifestations of these complications are enterocolitis, constipation, or stool incontinence[1-3].

Pediatric patients with aganglionosis (Hirschsprung's disease) are at high risk of necrotizing enterocolitis (HNEC), an infection of the intestine leading to serious morbidity and mortality. The etiology of HNEC is unknown; several hypotheses have been proposed based on clinical and experimental research, which include bacterial translocation, dysbiosis of the bowel microbiome, altered immune response, and impaired mucosal barrier function[4-6].

The main clinical manifestations of HNEC include abdominal distention, vomiting, loose stools, and fever. However, there is a broad clinical manifestation including lethargy, rectal bleeding and obstipation.

Most symptoms of HNEC are non-specific and the clinical presentation is usually similar to mild viral gastroenteritis[7].

Recently, a group of researchers described a "clinical grade" for HNEC for use in practice. The grading depends on the degree of loose stool, abdominal distention, and systemic manifestations, which could be mild, moderate and severe [7,8].

In patients of Grade I (possible HAEC), outpatient management can be employed including rectal irrigation, oral metronidazole, and hydration with electrolyte solution. In Grade II (Definite HAEC), inpatient management include intravenous fluids, nasogastric decompression, nil by mouth, and broad-spectrum intravenous antibiotic. Rectal irrigations are very effective to resolve fecal stasis. Patients with Grade III (severe HAEC), particularly with severe sepsis, may require admission to an intensive care unit; intravenous fluid resuscitation, nil by mouth, rectal irrigations, and broad-spectrum antibiotics (including metronidazole) are required. Rarely, these cases require ventilatory support or surgical intervention[7,8].

CONCLUSION

Patients could be managed medically, by simple surgical procedures, or a redo pull-through if they present with persistent constipation or recurrent enterocolitis after pull-through for Hirschsprung's disease.

Potential Conflicts of Interest: None.

Competing Interest: None.

Sponsorship: None.

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Ethical Approval: Approved by the Department of Pediatrics, Salmaniya Medical Complex, Bahrain.

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