



ABSTRACT

Effective use of semi-elemental diet in managing anastomotic leakage after surgery for esophageal stricture: A case report

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Introduction: Anastomotic leakage occurs in $\pm 10\%$ of patients after surgery for esophageal stricture. Management often requires re-surgery, which increases morbidity and mortality. This case report shows successful conservative management of anastomotic leakage with semi-elemental diet.

Case: A 44-year-old male (BMI 17.5 kg/m²) with esophageal stricture due to corrosive ingestion was hospitalized for colon transposition. Postoperatively, he had ± 200 mL/24 hours of anastomotic leakage. No signs of sepsis were observed. Conservative treatment included semi-elemental diet via nasojejunal feeding tube (NJFT), with a maximum rate of 6x100 mL, and three-chamber parenteral solution that was gradually withdrawn. By post-operation day (POD)-5, leakage volume reduced to <5 mL/24 hours. By POD-23, he was discharged with an improved Karnofsky Performance Scale and preserved NJFT. At home, he was on a homemade blenderized diet via NJFT. By POD-58, a complete closure of leakage and weight gain were observed. The patient tolerated oral soft diet and returned to daily living.

Discussion: Ahmad SJS et al., found that the reduction in the workload of digestion and absorption by semi-elemental diet and in peristalsis and digestive tract secretions may play a role in reducing leakage. This diet also helps maintain gut barrier integrity by providing essential nutrients that support mucosal repair and immune function to improve wound healing. Its casein hydrolysate and lactalbumin content also stimulates water and electrolyte absorption in jejunum, resulting in reduced leakage volume.

Conclusion: Semi-elemental diet may reduce anastomotic leakage and decrease the need for re-surgery.

Keywords: colon transposition, anastomotic leakage, nasojejunal feeding, semi-elemental diet

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