WHAT IS INTESTINAL FAILURE?
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DEFINITION

• "The reduction of the digestive function below the minimum necessary for the absorption of macronutrients and/or water and electrolytes, in such a way that intravenous supplementation (saline solution and/or parenteral nutrition) is required to maintain health and growth."

FUNCTIONAL CLASSIFICATION

• **Type I**: relatively frequent and self-limiting. It can occur after a wide range of abdominal surgeries or other pathologies that affect the correct gastrointestinal function. Only saline solutions and/or Parenteral Nutrition (TPN) will be required for short periods.

• **Type II**: Less frequent but more severe. It includes the infectious, metabolic and nutritional complications following extensive surgical resections. TPN will be needed for weeks or months.

• **Type III**: Chronic Intestinal Failure. It is one that needs prolonged or permanent TPN due to its severity.
CHRONIC INTESTINAL FAILURE

• It is the less frequent organic failure.

• In Europe, the prevalence of chronic intestinal failure due to benign disease has been estimated to range from 5 to 20 cases per million inhabitants.

• In Spain, according to the 2016 NADYA register, there were 286 patients with NPD, 252 adults and 34 children.

• 37.3% cases in adults and 64.7% in children corresponded to patients with SIC.

• Type III intestinal failure due to benign causes is considered a Rare Disease.
MAIN CAUSES OF INTESTINAL FAILURE

- Short bowel (the most common in adults and children)
- Enterocutaneous fistula
- Alteration of gastrointestinal motility
- Mechanical obstruction
- Affection of the small intestine mucosa (with decreased absorption or increase of loss)
SHORT BOWEL SYNDROME (SBS)

• SBS is the main cause of patients with type III intestinal failure in Europe:
  • 75% of adults with type III intestinal failure
  • 50% of children with type III intestinal failure

• SBS is a clinical picture of malabsorption that is characterised by the extreme reduction of effective intestinal absorption surface.

• It is defined as a disorder associated with a small intestine remains of less than 200 cm.

• The most frequent causes of SBS in the adult population are: mesenteric ischemia, Crohn's disease, necrotising enterocolitis and post-surgical complications.

• The most frequent causes of SBS in the child population are: intestinal malformation, intestinal volvulus and necrotising enterocolitis.
TYPES OF SHORT BOWEL SYNDROME (SBS)

- Enterostomy
- Jejunal-colonic anastomosis
- Jejunal-ileal-colonic anastomosis

RESECTION

- Jejunum-ileum-colon
- Ileal-colonic
- Jejunal
TREATMENT OF INTESTINAL FAILURE

• **Fundamental nutritional support:** Home Parenteral Nutrition (HPN)
  • Enteral nutrition and oral diet, depending on the clinical situation and intestinal adaptation

• **Drugs:**
  • Antidiarrhoeals
  • Proton pump inhibitor
  • Analgesics
  • Growth factors
  • Specific for the following complications: infectious, hepatic/bone pathology, mood affectation, etc.

• **Surgical techniques:**
  • Reconstructive
  • Intestinal transplantation
CONCLUSIONS

• The profile of patients with chronic intestinal failure is very heterogeneous and encompasses a great diversity of diseases, length and functional capacity of the remaining intestine, as well as different psychosocial characteristics.

• Patients with CIF suffer malabsorption of macronutrients, micronutrients, electrolytes and water, which can lead to malnutrition, diarrhoea and dehydration.

• The resulting malnutrition in these patients leads to weight loss.

• Nutritional support (HPN/saline solutions) should be adjusted to the needs and clinical situation of each patient.