

PARENTERAL NUTRITION IN ACUTE PANCREATITIS: A REVIEW OF APPROPRIATENESS

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BACKGROUND AND IMPORTANCE

According to nutritional recommendations in patients with pancreatitis, **adequate nutrition from the beginning** has a high impact on the pathology, since these are patients at risk of malnutrition.

AIM AND OBJECTIVES

The aim was to review the **adequacy** of individualized total parenteral nutrition (TPNs) in patients admitted with a diagnosis of acute (AP) or exacerbated (rPAP) pancreatitis.

MATERIAL AND METHODS



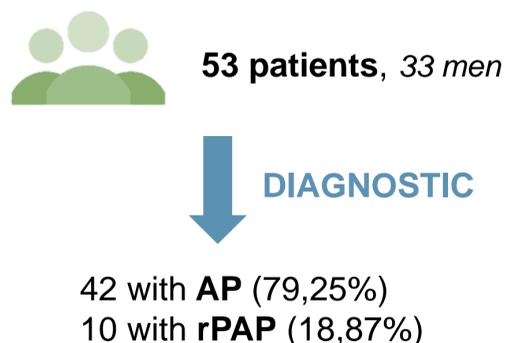
A **retrospective observational study** was conducted including patients admitted in our hospital from January 2020 to September 2021, all diagnosed with AP or rPAP.

COLLECTED VARIABLES

- **Demographic** (age, sex, height, weight)
- **Diagnostic**
- **TPN related variables:**
 - Initial TPN composition (lipids, carbohydrates, proteins)
 - Days from admission to initiation of TPN
 - Reason for initiation

All of the variables were collected from the HCIS® clinical history and Kabisoft® TPN prescription program

RESULTS



TPN initiation

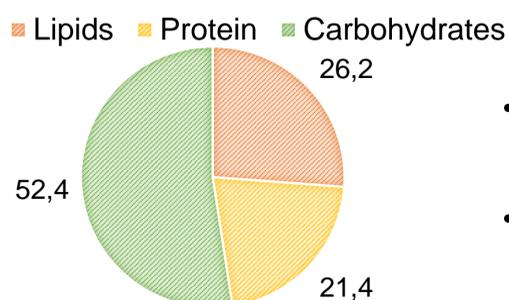
- The mean **number of days to initiation** of TPN was 3.30 (± 1.90) days.
- The majority, 48 of the total, started TPN due to **contraindications to oral diet**.



TPN composition

- Only 10 had a **lipid intake** ≥ 0.8 g/kg/day, the rest less, with a mean of 0.6 (± 0.23) g/kg/day.
- **Protein intake** averaged 1.1 (± 0.23) g/kg/day and **carbohydrates intake** was on average 2.8 (± 0.55) g/kg/day.

Average caloric intake (ACT)



- Twenty-eight of the TPNs had an **ACT lower** than the **calculated patients' requirements**.
- The average **non-protein kcal/g nitrogen** (KcalNP/gN) was 94.8 (± 19.20) and **non-protein kcal/kg** on average was 16.8 (± 3.84).

CONCLUSION AND RELEVANCE

- ✓ In line with the ESPEN guidelines, **protein, carbohydrate and lipid intake**, and **non-protein kcal/kg**, were **lower** than recommended.
- ✓ **Total TPN kilocalories** were also **lower** than the calculated requirements. This may be due to the fact that energy needs change according to AP severity and stage, and the risk of refeeding syndrome.
- ✓ **KcalNP/gN ratio was adequate**, ensuring that protein was used for tissue formation. The **caloric intake of carbohydrates** with respect to ACT was between the recommended 50-70%.
- ✓ More **clinical nutrition interventions** will be necessary, always integrated by a multidisciplinary team.