Effect of intravenous fluid resuscitation on inflammatory markers of acute pancreatitis and its clinical outcome

(A single centre prospective observational study)
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Introduction
- Fluid therapy: cornerstone to initial supportive treatment of Acute pancreatitis
- Existing guidelines: Not substantiated by concrete evidence
- There are no agreements On ideal fluid , infusion rate and resuscitation goals

Aims & objectives
1. To record and evaluate the first week resuscitation volume for maintaining:
   - CVP of 6-8 cm of water
   - Crina output of 4-6 ml per kg/hr
2. To study the effect of NS and RL on
   - IL-6, IL-10
   - clinical course and outcome

Methodology
- Inclusion criteria:
  - Age ≥ 18 years
  - Acute Pancreatitis (AP)
  - Within 48 hours post admission
- Exclusion criteria:
  - Preventing-oncological illness
  - Acute chronic pancreatitis
  - Recurrent AP

Organ failure patterns

Cumulative resuscitation volume

Trend of inflammatory markers (n=40)

Cytokine trend Early Vs. Late

NS resuscitation in SAP

- Higher incidence of AGGRESSIVE RESUSCITATION (p=0.057)
- Higher incidence of BLOOD BORNE INFECTION (17/14 VS 3/14, p=0.014)
- PROLONGED HOSPITAL STAY (48.3±14.7 vs 33.5±7.4 days, p=0.007)
- Higher probability of TRANSFER TO ICU (11/14 VS 9/14, p=0.039)
- Higher need for INVASIVE INTERVENTIONS (13/14 VS 9/14, p=0.029)

Conclusion
- Cytokine trend: RL vs NS: No significant difference
- RL resuscitation:
  - Early resolution of organ failure
  - Less infections
  - Shorter hospital stay

Aggressive resuscitation:
- APACHE
- EARS
- SIRS
- Inotropic support
- Invasive ventilation
- Long stay
- ICU admittance

Methodology

Local complications

Course & invasive intervention

Duration of hospital stay

Invasive Interventions

Invasive ventilation

NS/RLNS has significant association with longer hospital stay and ICU stay and higher need for invasive intervention

GOAL:
CVP 8-12 cm
U/T 0.5 x SBP
SCH T 37°C
LOCAL ANAESTHETIC