

1. Trop Gastroenterol. 2009 Oct-Dec;30(4):201-6.

Effect of antioxidant therapy on hospital stay and complications in patients with early acute pancreatitis: a randomised controlled trial.

Sateesh J, Bhardwaj P, Singh N, Saraya A.

Department of Gastroenterology, All India Institute of Medical Sciences, New Delhi-110029, India.

Abstract

BACKGROUND: Oxidative stress (OS) in acute pancreatitis (AP) has been pathologically linked with the systemic inflammatory response and antioxidant supplementation may have a clinical benefit.

METHODS: In this prospective, randomised open label, controlled pilot study, patients admitted within 72 hours of onset of pain were randomised to receive either placebo (only standard medical treatment; SMT) or antioxidants (vitamin C 500 mg, N-acetyl cysteine 200 mg 8 hourly and antoxyl forte 1 capsule hourly with standard medical treatment; SMT + AO) daily, following informed consent. Patients with co-morbid illness and pregnancy were excluded. Primary efficacy measures were length of hospital stay and complications whilst secondary measures were biochemical markers of oxidative stress (thiobarbituric acid reactive substances [TBARS] and superoxide dismutase [SOD] and total antioxidant capacity [TAC] and vitamin C) at Days 1, 3 and 7.

RESULTS: Of 53 patients, 30 patients were randomised to SMT and 23 patients to SMT + AO. The mean duration of hospital stay in the SMT group (10.3 +/- 7 days) was more compared to SMT + AOT (7.2 +/- 5 days), but was not statistically significant ($p=0.07$), complications were similar in the 2 groups. At Day 7, OS was significantly lower in the SMT + AO group when compared with the SMT group (TBARS, $p=0.05$; SOD, $p=0.03$) with a significant increase in FRAP and vitamin C ($p=0.01$).

CONCLUSIONS: Antioxidant supplementation may decrease the length of hospital stay and complication rate in patients with AP, but a larger clinical trial is needed to support this hypothesis. Further, it decreased the OS and improved the antioxidant status in patients with AP.

PMID: 20426279 [PubMed - indexed for MEDLINE]