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Drug Watch

Antioxidant therapy for recurrent pancreatitis

There is little to offer patients with recurrent pancreatitis in way of treatment. These patients suffer considerable pain, and about the only measure that will guarantee long-term pain relief is near-total pancreatectomy - which carries the penalties of malabsorption and brittle diabetes.

Though the number of patients with chronic pancreatitis will be small across the UK, there may be pockets of relatively high prevalence, largely in deprived areas. These patients will consume significant amounts of health service resources - even more if near-total pancreatectomy is carried out.

Anti oxidant therapy which can be shown to be effective in chronic pancreatitis will therefore have an impact on healthcare provision.

Causes of pancreatitis

There is accumulating evidence that oxidant stress resulting from an excess of pro-oxidant over anti-oxidant has a key role in acute oedematous pancreatitis as well as painful exacerbations of chronic disease.

Cytokines like platelet activation factor (PAF) have also been shown to be involved with development of the acute disease in animal models, but it is likely that the prime insult which triggers pancreatitis is oxident stress.

Antioxidant therapy?

From this, it would seem likely that therapy with antioxidants should help prevent pancreatitis. A randomised, controlled, double-blinded, double dummy, crossover study from the Manchester Royal Infirmary has shown this to be the case.

Twenty patients with chronic pancreatitis (8 idiopathic, 7 alcoholic and 5 idiopathic acute) entered the study in which micronutrient antioxidant therapy was compared with placebo, each for a 20 week period.

Patients took six tablets of selenium beta-CE (Wassen International) and eight tablets of methionine (Evans Medical Ltd) in divided doses, giving a daily total of:

600mg organic selenium

9000 IU beta-carotene

0.54g vitamin C

270 IU vitamin E

2g methionine

Results

This was a thorough and detailed study. The bare-boned results were that while six patients had an attack while on placebo, not one had an attack while on active medication.

Pain scores were significantly lower on active treatment (than) on placebo and at baseline.

Benefits and costs

Treatment would entail a maximum cost of 15 pounds a month a month (1990 prices), with possibly a 50 percent reduction after six months. This financial outlay is small compared with the cost in terms of the mortality, morbidity, narcotic use, malnutrition and brittle diabetes of near-total pancreatectomy.

Reference:

S Uden et al. Antioxidant therapy for recurrent pancreatitis: placebo controlled trial. *Alimentary Pharmacology and Therapeutics* 1 - 4: 357-71

QUESTIONS TO BE ANSWERED

Q: What need is met by this therapy?

A: Treatment of patients with chronic or recurrent acute pancreatitis

Q: What happens now?

A: Patients are treated with analgesics, or may go on to near-total pancreatectomy resulting in malabsorption and diabetes.

Q: Is quality improved?

A: Yes - patients on this treatment do not have pain.

Q: What does the treatment cost?

A: Less than 15 pounds per month per patient.

Q: Can cost savings be made?

A: Yes - though not quantified, the cost of treatment with antioxidants is likely to be much less than present treatments.

Advice to Health Authorities and GPFHs

Will increase quality and effectiveness

May result in reduced costs

Worth considering in specification