



THE EFFECT ON HEALING OF ANALGESIC AND ANTI-INFLAMMATORY THERAPY

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A trial has been carried out among student athletes comparing ibuprofen, a non-steroidal anti-inflammatory agent, with paracetamol, a simple analgesic, in the treatment of acute sports injuries. Sixty students took part in a double blind study of injuries sustained in a variety of sporting activities. The initial doses used were ibuprofen 1,600 mgs daily, and paracetamol 3,600 mg. Records were kept of the nature of the sport during which the injury occurred, the site of the injury, and the time that had lapsed since it was sustained (average 1.8 days). The average age of patients was 20 years, and the ratio of male:female, 8:1. The severity of pain, degree of tenderness, the size of the swelling and the degree of movement restriction were also noted. Re-assessments by both doctor and patient were made on the fifth and the tenth day. Five patients withdrew from the trial, so the results are based on the remaining 55. The side

effects were few, insignificant, and occurred in only a few patients. Both treatments resulted in improvement but those on ibuprofen seemed to improve quicker than those on paracetamol, and were able to resume training in a significantly shorter time.

The reason for the choice of paracetamol was to compare an anti-inflammatory drug with one which has little or no anti-inflammatory action, as we considered it would not be ethical to compare treatment with no treatment. The drugs act differently; ibuprofen is a mild prostaglandin synthetase inhibitor, so could be compared with natural healing aided by a simple analgesic. No formal physiotherapy was given, but there was no control over what the patients did for themselves at home.

Even though soft tissue sports injuries ultimately recover spontaneously the athlete wants to get back to sport as quickly as he possibly can. The trial shows that if ibuprofen is given within two days of injury return to sporting activity is hastened, and our results support those of Muckle (1974).

Number of days from start of treatment until sport was resumed

Drug	No. of Days			Total No. of Patients	df	Probability
	1-5	6-10	> 10			
Ibuprofen	14	7	7	28	7.16	2 p < 0.05*
Paracetamol	5	15	7	27		

b = Chi-Square test (Siegel, 1956)

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