



Service Priorities and Programmes
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Analgesic Effectiveness and Safety of prednisolone and indomethacin in treating clinical gouty arthritis: a multicentre, double-blind, randomized study
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Introduction

Acute gouty arthritis is a crystal-induced inflammation of the joint which primarily affects middle-aged and elderly adults and is the commonest cause of inflammatory joint disease in men aged over 40 years. It is an increasingly prevalent condition which creates a heavy economic burden worldwide.

Objectives

To compare oral prednisolone with oral indomethacin in patients presenting to emergency departments with acute gout arthritis firstly for analgesic effectiveness, and secondly for safety.

Methodology

Design: Pragmatic, multi-centre, double-blind, randomised equivalence trial. **Setting:** The emergency departments (ED) of four hospitals from the three territories in Hong Kong. **Subjects:** All patients aged ≥ 18 years presenting to the ED with a clinical diagnosis of an acute arthritis suggestive of gout and who met preset criteria were considered for the study. **Interventions:** each patient received either oral indomethacin/paracetamol plus placebo or prednisolone/paracetamol plus placebo for 5 days.

Result

416 patients were recruited to the study (208 patients in each arm), and 376 patients completed the study per protocol. Clinically significant reductions in mean pain score were observed with both treatments within two hours of treatment and over the subsequent 14 days. There was also no difference in joint tenderness and redness

score between the two arms. There were no major adverse events during the ED phase of the study although 34 (18%) patients in the indomethacin group and 10 (5.3%) patients in the prednisolone group suffered from mild side effects ($P < 0.0001$). There were also no major adverse events during the day 1 to day 14 phase of the study, although 75 (39%) patients in the indomethacin group and 75 (40%) patients in the prednisolone group suffered from mild side effects ($P = 0.527$). No patient required admission to hospital for adverse events. Conclusions: Prednisolone and Indomethacin are equally effective first line treatments for acute gout-like arthritis in the ED. There were no serious adverse event rates between days 1 and 14.