



The Fields of Italy



PIC QUESTION OF THE WEEK: 9/26/11

Q: Colchicine and its *other* indication. What in the world is familial Mediterranean fever?

A: A pharmacist may be surprised to find familial Mediterranean fever (FMF) among the labeled indications for colchicine (Colcrys). FMF is an autosomal recessive disorder found most commonly in people of Mediterranean ancestry. Diagnosis of the disease is often based on clinical symptoms and ethnic heritage; however, mild symptoms may cause diagnostic confusion. In these cases, genetic mapping has played a prominent role in identifying the disease. The genetic character of FMF has been so well studied that geneographers can track migration routes through these specific mutations. Cases of FMF have also been found in patients of Japanese and European descent. It has been hypothesized that these mutations were passed on from individuals traveling through trade routes such as the *Silk Road* since they are identical to those from the Mediterranean region. FMF is characterized by spontaneous fever and an erythematous skin rash that lasts from one to four days. The disease is also associated with acute complications such as pericarditis, pleuritis, peritonitis, and arthritis. In areas of low prevalence, this disease may remain unrecognized and lead to unnecessary tests and medical procedures. The *acute* episodes of FMF are both troublesome and painful for the patient, but *chronic* disease may result in the deposition of amyloid plaque in multiple organ systems and ultimately produce organ failure. Approximately 80% of patients with FMF are diagnosed before the age of 10; however, others may remain undiagnosed until the fifth decade. Colchicine is the primary treatment for FMF. Its chronic use not only prevents flares of the disease but also prevents the deposition of amyloid. Colchicine binds to microtubules within neutrophils, thus inhibiting their migration. This ultimately interferes with the inflammatory response associated with the disease. The recommended daily adult dosage of colchicine is 1.2-2.4 mg while the dose in pediatrics is 0.3-2 mg. Three open-labeled, placebo-controlled trials resulted in a significant decrease in the number of acute attacks of FMF while other studies have revealed the beneficial effects of colchicine in preventing amyloidosis. One study lasting up to 11 years resulted in an improvement in renal function in patients on colchicine with only 0.4% of those receiving the drug developing proteinuria compared to 30% in the control group. In patients with amyloidosis, colchicine appears to reduce progression and even improves renal function in both age groups. For acute attacks, NSAIDs and opioids may provide some benefit.

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