

First-line treatment with colchicine reduced recurrent pericarditis

Imazio M, Bobbio M, Cecchi E, et al. Colchicine as first-choice therapy for recurrent pericarditis: results of the CORE (COLchicine for REcurrent pericarditis) trial. *Arch Intern Med.* 2005;165:1987-91.

Clinical impact ratings: Hospitalists ★★★★★☆☆ Cardiology ★★★★★☆☆

QUESTION

In patients with recurrent pericarditis, does the addition of colchicine to conventional therapy with aspirin or prednisone reduce recurrence better than conventional therapy alone?

METHODS

Design: Randomized controlled trial (COLchicine for REcurrent pericarditis [CORE] trial).

Allocation: {Concealed}†.*

Blinding: Blinded {data collectors, outcome assessors, monitoring committee, and data analysts}†.*

Follow-up period: Mean 20 months (range 8 to 44 mo).

Setting: A hospital in Torino, Italy.

Patients: 84 patients ≥ 18 years of age (mean age 54 y, 65% women) who had a first recurrence of pericarditis and previous idiopathic, viral, and autoimmune causes of the first episode of acute pericarditis. Exclusion criteria were tuberculous, neoplastic, or purulent causes of the first episode; severe liver disease or transaminase levels > 1.5 times the upper limit of normal; serum creatinine level > 2.5 mg/dL (> 221 μmol/L); myopathy or serum creatine kinase level > the upper limit of normal; blood dyscrasias or gastrointestinal disease; pregnancy, lactation, or childbearing

potential; or hypersensitivity to or current treatment with colchicine.

Intervention: Conventional therapy plus colchicine, 1.0 to 2.0 mg on day 1 then a maintenance dose of 0.5 to 1.0 mg/d for 6 months ($n = 42$), or conventional therapy alone ($n = 42$). Conventional therapy consisted of aspirin, 800 mg every 6 or 8 hours for 7 to 10 days, then tapered for 3 to 4 weeks. Patients in whom aspirin was contraindicated received prednisone, 1.0 to 1.5 mg/kg per day for 4 weeks, then tapered gradually. 14 patients in the conventional therapy plus colchicine group and 16 patients in the conventional therapy alone group received prednisone.

Outcomes: Recurrence of pericarditis. Secondary outcome was symptom persistence 72 hours after starting treatment.

Patient follow-up: 100% (intention-to-treat analysis).

MAIN RESULTS

Patients who received colchicine had a lower recurrence rate than did patients who received conventional therapy alone (actuarial recurrence rate at 18-mo follow-up 51% vs 24%, $P = 0.02$) (Table). The colchicine group also had lower symptom persistence rates at 72 hours (Table). No serious adverse effects occurred.

CONCLUSION

In patients with recurrent pericarditis, colchicine added to conventional therapy with aspirin or prednisone reduced recurrence better than conventional therapy alone.

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*See Glossary.

†Information provided by authors.

Conventional therapy plus colchicine vs conventional therapy alone for recurrent pericarditis at mean 20 months‡

Outcomes	Conventional therapy + colchicine	Conventional therapy alone	RRR (95% CI)	NNT (CI)
Recurrence	21%	45%	53% (10 to 76)	5 (3 to 28)
Symptom persistence at 72 h	10%	31%	69% (19 to 89)	5 (3 to 23)

‡Abbreviations defined in Glossary; RRR, NNT, and CI calculated from data in article.

COMMENTARY

The study by Imazio and colleagues addresses management of patients with recurrent pericarditis. Pericarditis may account for 5% of presentations to an emergency department for nonacute myocardial infarction chest pain, is troublesome for patients, and is difficult to treat effectively (1-3). Few studies have investigated the systematic management of recurrent pericarditis, although the use of colchicine is not new (4). In this study, patients receiving colchicine had a lower recurrence rate and better symptom relief. Although no serious side effects from colchicine occurred, about 6% of patients had diarrhea that required discontinuation of treatment.

There are some obvious limitations to the study. First, because recurrent pericarditis is uncommon and the accrued sample size was small, the findings may have occurred by chance alone. Second, the study used an open-label design (acknowledged by the authors), which may increase bias, although outcome events were reviewed by an independent committee that was blinded to treatment allocation. Third, concomitant treatments received little discussion, and the choice of aspirin alone as "standard therapy" in contrast to conventional nonsteroidal antiinflammatory drugs is open to debate. Thus, the beneficial effects of colchicine may be smaller than estimated in this study. Other studies have also supported the use of colchicine in similar settings but lack the rigor of this study (5).

Despite potential shortcomings, Imazio and colleagues should be congratulated for undertaking a randomized trial in this area and providing important clinical insights. Little doubt exists from their data that colchicine should be considered as a front-line therapy, in addition to high-dose aspirin, for management of recurrent pericarditis.

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References

1. Troughton RW, Asher CR, Klein AL. Pericarditis. *Lancet.* 2004;363:717-27.
2. Lange RA, Hillis LD. Clinical practice. Acute pericarditis. *N Engl J Med.* 2004;351:2195-202.
3. Soler-Soler J, Sagristà-Sauleda J, Permanyer-Miralda G. Relapsing pericarditis. *Heart.* 2004;90:1364-8.
4. Guindo J, Rodriguez de la Serna A, Ramió J, et al. Recurrent pericarditis. Relief with colchicine. *Circulation.* 1990;82:1117-20.
5. Artom G, Koren-Morag N, Spodick DH, et al. Pretreatment with corticosteroids attenuates the efficacy of colchicine in preventing recurrent pericarditis: a multi-centre all-case analysis. *Eur Heart J.* 2005;26:723-7.