

## Long-term natural history of transient constrictive pericarditis

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**Background:** In recent years, there has been increasing recognition of a potentially-reversible, transient/ subacute form of constrictive pericarditis (CP). To date, studies have been small with lack of long-term longitudinal follow-up.

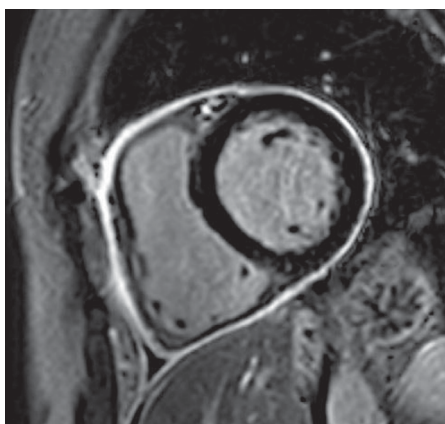
**Purpose:** We aimed to elucidate the causes and natural history of subacute CP.

**Methods:** Patients were included if (1) they had a diagnosis of CP, (2) had cardiac magnetic resonance (CMR) within 12 months of symptom onset with evidence of pericardial delayed enhancement/ inflammation (Figure) (3) received anti-inflammatory medications.

**Results:** A total of 78 individuals were included, comprising 61 men (78%) with a mean age of  $59 \pm 14$  years. Causes of subacute CP included idiopathic/ viral pericarditis (58%), post-pericardiectomy (29%), autoimmune (6%), radiation therapy (3%) and others (4%). After median follow-up of 4.4 years, 31 (40%) required pericardiectomy. There were no deaths. Patients who underwent pericardiectomy had longer duration of symp-

toms at presentation [6 (4–9) vs. 3 (2–5) months,  $P < 0.01$ ], were more likely to be on diuretic therapy (87 vs. 45%,  $P < 0.001$ ), had lower ultra-sensitive C-reactive protein [4.4 (2.6–13.1) vs. 11.95 (1.8–61.55) mg/dl,  $P < 0.001$ ] and lower erythrocyte sedimentation rate [5 (2–10) vs. 25 (6–43) mm/hr,  $P = 0.031$ ] compared to those who were managed medically. There were no other significant differences in clinical characteristics or baseline anti-inflammatory therapy. The presence of elevated inflammatory markers (HR: 0.18; 95% CI: 0.06–0.58,  $P < 0.01$ ) was an independent predictor of freedom from pericardiectomy after adjustment for relevant clinical and imaging parameters.

**Conclusions:** We present the original observations of the largest cohort of patients with transient CP to date and demonstrate that increased inflammatory markers were independently associated with long-term freedom from pericardiectomy. Our results suggest that a trial of anti-inflammatory therapy in the setting of elevated inflammatory markers may be appropriate prior to referral for surgery given the possible reversibility.



Pericardial delayed enhancement