# Clinical implications of the morphological features of left ventricular intracavitary thrombi after anterior ST elevation myocardial infarction

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**Background:** Left ventricular thrombi (LVT) after an anterior ST elevation myocardial infarction (STEMI) are usually classified as protruding or laminar according to their morphological characteristics. However, it is unknown whether this morphology has any clinical implication.

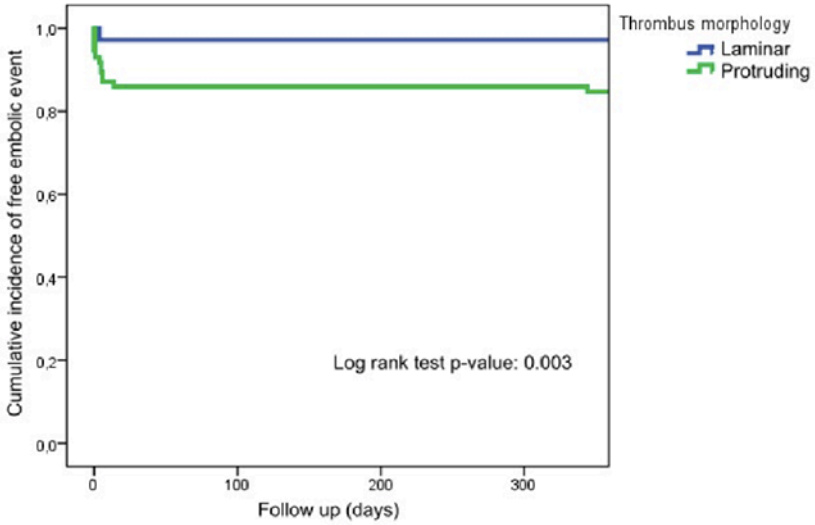
**Purpose:** Determine prognostic between laminar or protruding LVT in the community of anterior STEMI.

**Methods:** An observational cohort study on patients with LVT after anterior STEMI detected by echocardiography between 2008 and 2019 was conducted. Laminar LVT was defined as those protruding <5mm inside the cavity.

**Results:** Of 1.215 anterior STEMI patients, 121 (10%) cases presented LVT: 86 (71%) were protruding and 35 (29%) laminar. Mean follow-up was 323 ± 116 days. No differences in baseline clinical and echocardiographic characteristics were detected between both groups. However, protruding LVT patients were more frequently treated with triple therapy (71% vs 40%; p < 0.001). Laminar LVT patients presented a lower stroke rate (3% vs 16%; P = 0.042) and embolism-related rate (3% vs 19%; p = 0.024) than protruding LVT cases (see Figure). Laminar LVT was associated with lower embolism-related events during follow-up independently than left ventricular ejection fraction (LVEF) and age (OR = 0.11; 95% CI,0.12-0.94; p = 0.045). No differences were observed in laminar LVT patients in embolism-related events during follow-up between those treated with or without triple therapy (7% vs 0%; p = 0.400).

**Conclusions:** Laminar LVT after anterior STEMI presented a lower rate of embolism-related complications during follow-up compared with protruding LVT regardless of LVEF, age and even with a lower rate of triple therapy.

Abstract Figure.

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