**THROMBOSIS FOLLOWING CLOSURE OF LARGE DISTAL CORONARY ARTERY FISTULA - TO CLOSE OR NOT CLOSE LARGE DISTAL CAF?**

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Introduction: The incidence and risk factors for early or late thrombosis in Coronary artery fistula (CAF) patients have not been adequately evaluated. We sought to describe the risk of coronary thrombosis post closure.

Method: Patients who underwent evaluation for CAF were identified from 2 tertiary centers. Medical records were retrospectively reviewed. To predict risk factors for thrombosis; we classified CAF into proximal and distal type and the size of the fistula as small, medium and large.

Results: A total of 26 patients with median age 11.5 (0.3 to 56yrs). Seventeen patients had large, 7 medium and 2 had small size CAF. Seventeen underwent transcatheter, and 5 surgical CAF closure. The remaining 4 had no intervention (medical observation). Thirteen patients had proximal and 13 had distal type of CAF. Thirteen with proximal and 9 with distal of CAF had successful closure. Median follow-up was 3 years, range 0.1 to 41.6 years. Eight had follow-up angiograms - 4 of these had history of significant adverse events with evidence of coronary thrombosis. Three had myocardial infarction (MI) < 24hrs post closure and 1 had MI 40 yrs later. All 4 with MI had large size, distal CAF. Four patients without intervention with distal CAF have remained asymptomatic.

Conclusion: Large size, distal CAF may be at higher risk for coronary events post closure requiring long-term follow up and anticoagulation. The optimal treatment approach to various morphologies of CAF at various ages remains to be determined.