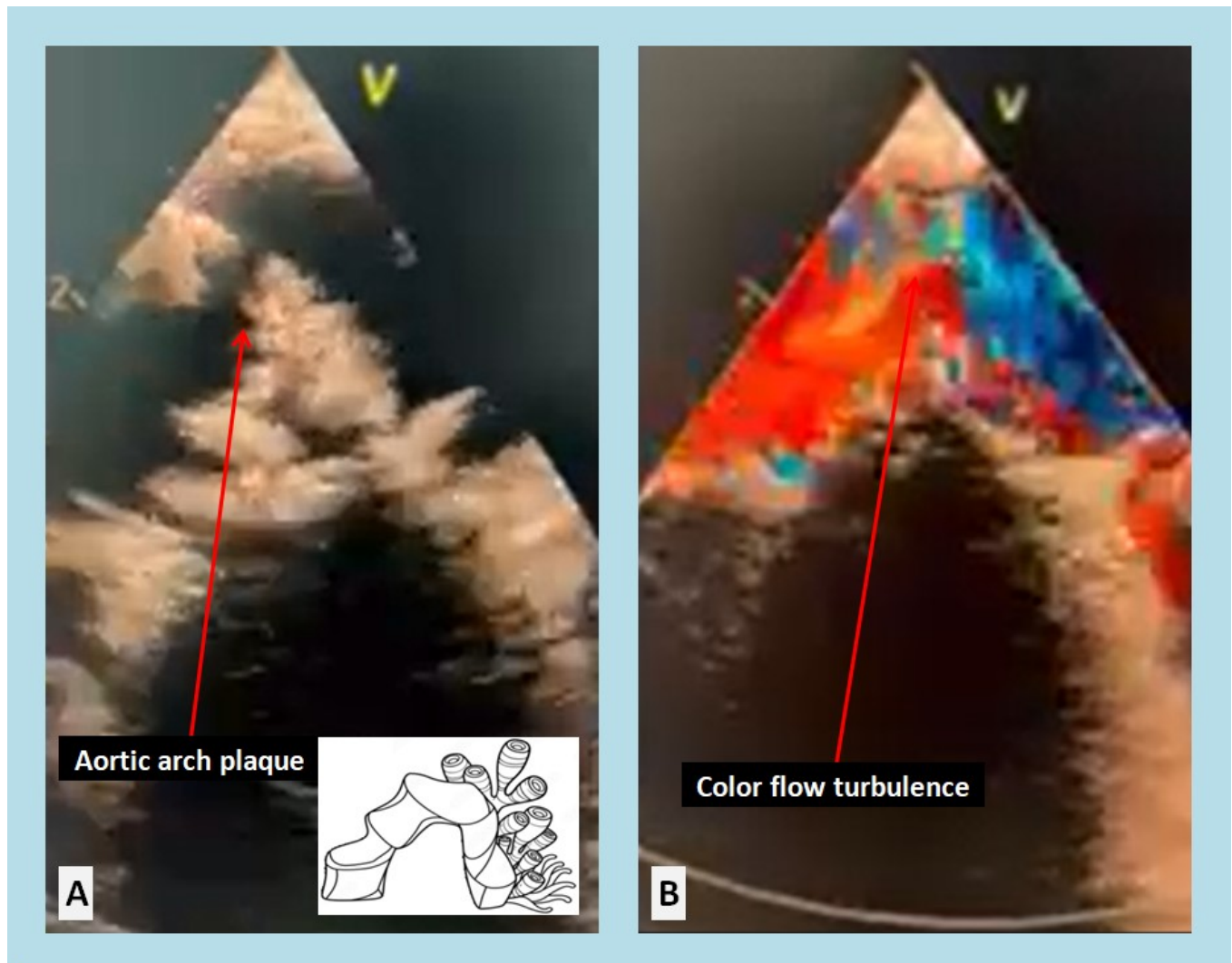


Coral Reef Aortic Arch: *Acquired Aortic Coarctation!*

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Description

The transesophageal echocardiogram (TEE) images above demonstrate giant ulcerated and calcified mobile plaque in the aortic arch (Figure A) simulating a coral reef arch (insert). Figure B demonstrates aliased color flow Doppler across the plaque consistent with flow obstruction. This would cause a physiologic equivalent to aortic coarctation due to the acquired significant aortic arch plaque shown.

Discussion

Aortic plaque burden is a predictor of composite cardiovascular events in cardiac patients, including cardiovascular death, myocardial infarction, stroke, peripheral artery disease, and worsening renal function [6]. The term coral reef aorta has been applied to aortic plaques that is extensively calcified and exophytic in nature [2], originally reported in the segment of the aorta adjacent to the renal artery [3, 4].

In addition to its embolic potential, giant aortic atheroma has been reported to cause obstructive manifestations similar to aortic coarctation [5]. Aortic coral reef has also been reported as a potential cause of heart failure [6].

Treatment options depend on the presentation, disease manifestations and anatomic considerations and may include medical management [7], interventional treatment [8], and endarterectomy or surgery [9]. The rapidly growing endovascular therapeutics, providing novel interventions in face of surgical barriers, could perhaps truly conquer the great coral reef barrier of the aorta in the foreseeable future [10].

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