Intimointimal intussusception in both the proximal and distal ascending aorta: a rare clinical form of acute type A aortic dissection

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A 67-year old female presented with acute aortic dissection with bidirectional intimointimal intussusception, complicating brain and myocardial ischaemia and aortic regurgitation. The intimal flap prolapsed antegrade into the aortic lumen (antegrade type) or retrograde into the left ventricular cavity (retrograde type) (Figs 1 and 2). Emergency hemi-arch replacement was successfully performed.

Figure 1: An intimal flap obstructing orifices of the arch vessels (A). Another flap was seen in the Valsalva sinus and outflow of the left ventricle (B, arrow). There was no intimal flap in the ascending aorta (C).

Figure 2: Transoesophageal echocardiography showed the prolapse of the intimal flap into both the left ventricle (systolic and diastolic phase; Left, arrows) and the aortic arch (Right, arrow). The intimal flap of the retrograde type was moving between the outflow of the left ventricle. Another flap of the antegrade type was not moving, because it got stuck in the aortic arch.