An unusual cause of tricuspid regurgitation

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A 74-year old woman was presented with dyspnoea (New York Heart Association Class III) developing over 1-week. She had inferior vena cava (IVC) inserted 6 weeks prior for proximal iliofemoral deep vein thrombosis. On chest x-ray/echocardiography this had embolized to the right ventricle (Fig. 1). The patient had severe tricuspid regurgitation as septal leaflet chordae were torn. She underwent removal of IVC filter and tricuspid valve replacement (Fig. 2).

Figure 1: (a) AP chest X-ray demonstrating the embolized OPTEASE® Retrievable Vena Cava Filter (Cordis Int). This can be seen more clearly in the (b) fluoroscopy images. The retrieval hook faced the RV cavity. (c) Transthoracic echocardiography confirming the embolized IVC filter into the right ventricle with entanglement into tricuspid valve apparatus causing severe regurgitation.

Figure 2: (a) Endoscopic extraction was considered but due to high-risk of tearing the tricuspid valve, she underwent removal of IVC filter under cardiopulmonary bypass. (b) The filter mesh was cut for removal.

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