

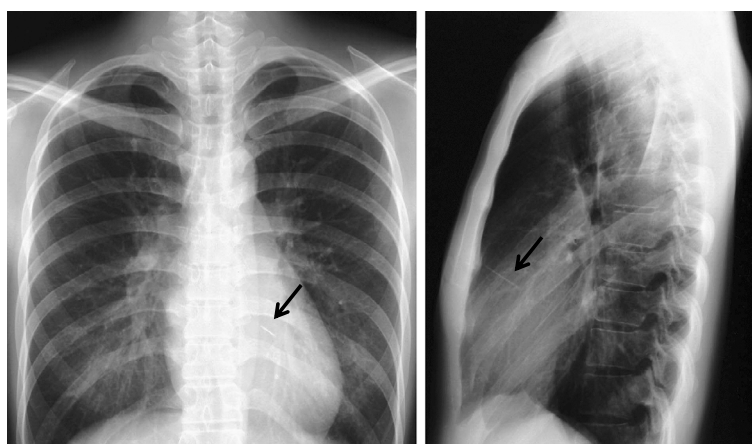
## Mitral Regurgitation Induced by a Migrating Sewing Needle

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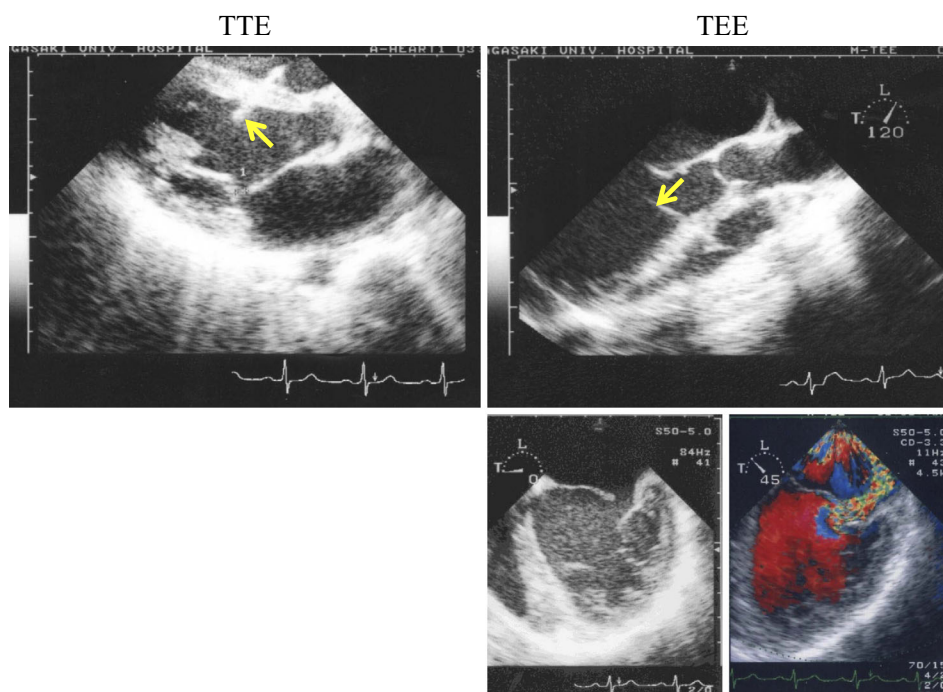
**Key words:** mitral valve, needle

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Picture 1.

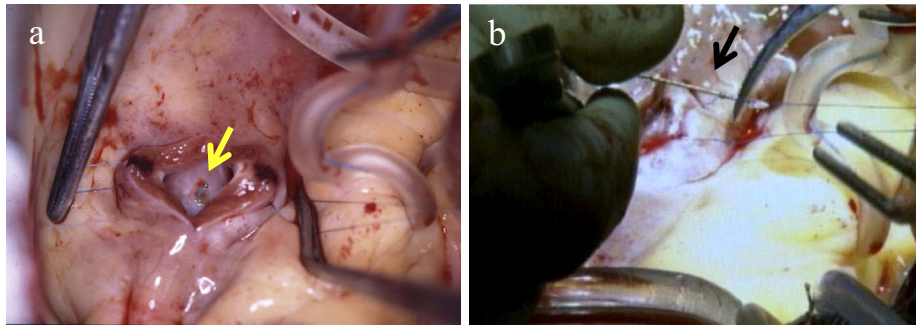


Picture 2.

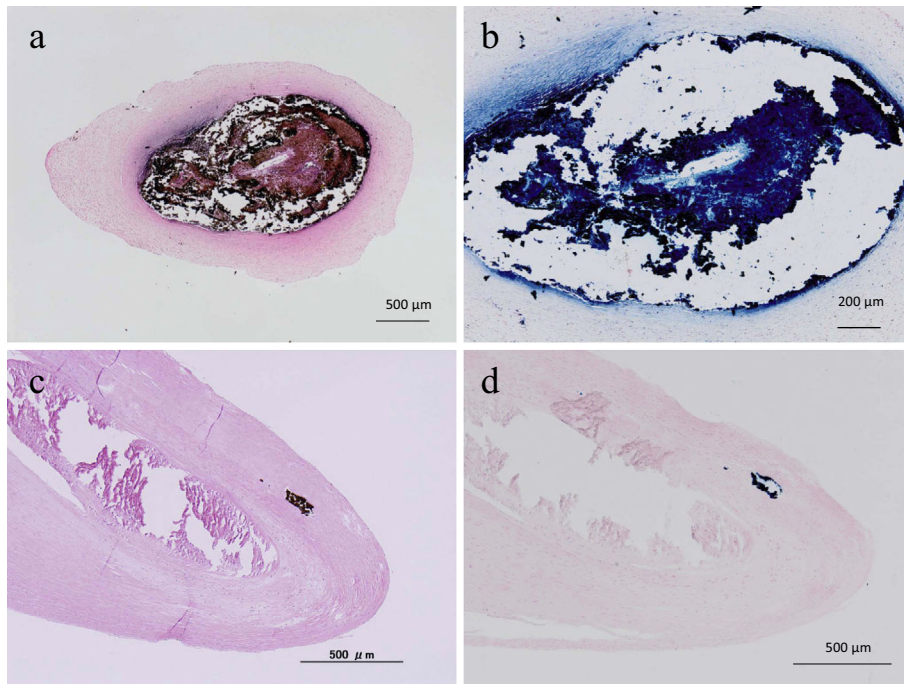
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Picture 3.



Picture 4.

A 27-year-old woman was admitted to our hospital for mitral regurgitation (MR). She had previously cut her wrist and used a sewing needle to puncture her left arm in a suicide attempt. A chest X-ray showed a linear foreign body in the heart (Picture 1). Transthoracic and transesophageal echocardiography (TTE and TEE) demonstrated that a 3-cm-long needle had penetrated the interventricular septum causing severe MR due to mitral valve prolapse of the anterior mitral leaflet (Picture 2). Operatively, the needle was removed (Picture 3a, b), and mitral valvuloplasty was per-

formed. The needle was surrounded by collagen tissue (Picture 4a, Hematoxylin and Eosin (HE) staining) that contained iron with rust (Picture 4b, Berlin blue staining). Iron with rust was also observed in a ruptured chordae tendineae (R-CT) of the mitral valve (Picture 4c, HE staining; and Picture 4d, Berlin blue staining), thus indicating that the CT had been injured by the needle.

**The authors state that they have no Conflict of Interest (COI).**