A pedicle screw in the descending thoracic aorta: a surgical approach

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A 18-year old-woman underwent surgical treatment of severe kyphoscoliosis. During the postoperative course, the left screw placed in T6 was protruding into the descending thoracic aorta (Fig. 1). Due to the young age, the pedicle screw was withdrawn through a left thoracotomy and under partial cardiopulmonary bypass (Fig. 2).

Figure 1: (A) Orthopaedic surgery was performed due to the extremely spine curvature, which consisted in insertion of two longitudinal rods and 10 pedicle expander screws and decompression of the spinal cord. Three months later, chronic back pain occurred. (B) Twenty months after the first procedure and because of persistent symptoms, a computed tomographic scan was performed and showed that the left screw placed in T6 was protruding into the descending thoracic aorta without pleural effusion and periaortic haematoma (C).
Figure 2: (A) The aorta was controlled and cross clamped, and a transverse aortotomy showed the tip of the pedicle screw (B). The patient recovered uneventfully discharged home on postoperative day 9, and the postoperative computed tomographic scan demonstrated good result without pseudoaneurysm or haematoma.