An 81-year-old male complained of a sudden pain in the right side of his chest. Using preoperative computed tomography (CT) (Fig. 1A), he was diagnosed with type A dissection associated with situs inversus totalis. Accordingly, total arch replacement was performed (Figs. 2A and B). The postoperative course was uneventful, and CT scan was good in shape (Fig. 1B).

**Keywords:** Aortic dissection • Situs inversus • Dextrocardia