

## CLINICAL IMAGE

# Desmoid-type fibromatosis arising from thoracotomy incision

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**Abstract**

Desmoid-type fibromatosis following thoracotomy is rare and has been previously reported only in <20 cases; however, it might mimic chest wall recurrence of previous cancer and needs differential diagnosis. When the tumor location corresponded to the thoracotomy incision, we should consider desmoid-type fibromatosis as a differential diagnosis.

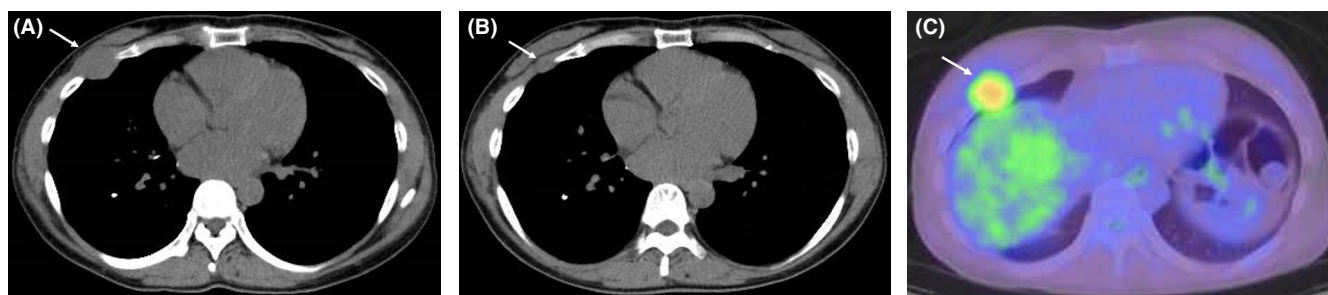
**KEYWORDS**

chest wall, desmoid-type, fibromatosis, thoracotomy

## 1 | CASE PRESENTATION

We present a rare case of desmoid-type fibromatosis arising from a thoracotomy incision. A 45-year-old woman underwent right S8 + 9 segmentectomy. The pathological diagnosis was stage IA1 lung adenocarcinoma. Chest computed tomography revealed a chest wall mass measuring 33 × 23 mm 19 months after surgery (Figure 1A). It was palpable as a 20-mm hard mass. We could retrospectively identify a mass measuring 14 × 8 mm at the same site on a CT scan taken

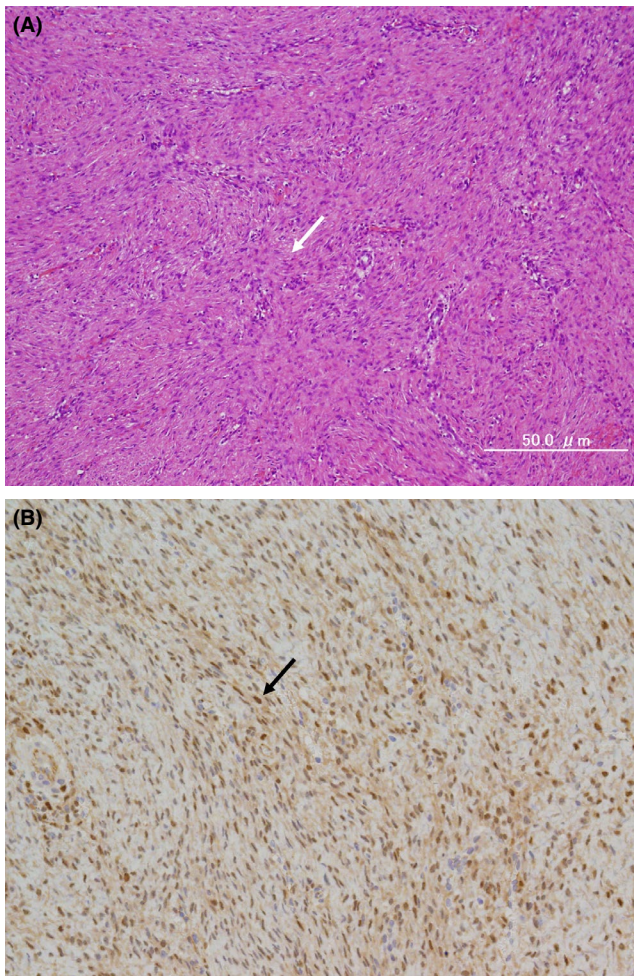
11 months after surgery (Figure 1B). The tumor location corresponded to the thoracotomy incision at the fifth intercostal space. 18F-fluorodeoxyglucose positron emission tomography showed a maximum standardized uptake value of 4.7 in the tumor (Figure 1C). Needle biopsy indicated no evidence of malignancy. We resected the tumor 21 months after the first surgery. Based on histopathological examination and immunohistochemical examination for β-catenin (Figure 2A and B), a pathologic diagnosis of desmoid-type fibromatosis was established. We performed chest wall resection, including the



**FIGURE 1** A, Chest computed tomography (CT) revealed a chest wall mass measuring 33 × 23 mm 19 mo after surgery. B, We could identify a mass measuring 14 × 8 mm at the same site on a CT scan taken 11 mo after surgery. C, 18F-fluorodeoxyglucose positron emission tomography showed a maximum standardized uptake value of 4.7 in the tumor

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**FIGURE 2** A, Histopathological examination showing tumor cells composed of spindle-shaped cells arranged in a fascicular pattern (hematoxylin and eosin stain, original magnification  $\times 100$ ). B, Immunohistochemical examination showing spindle cells positive for nuclear  $\beta$ -catenin (original magnification  $\times 400$ ) and negative for desmin, S100, and CD34. The MIB-1 index was  $< 5\%$

fifth and sixth ribs, to secure a sufficient margin. Desmoid-type fibromatosis following thoracotomy is rare and has been previously reported only in  $< 20$  cases<sup>1,2</sup>, however, it might mimic chest wall recurrence of previous cancer and needs differential diagnosis.

#### CONFLICT OF INTEREST

None declared.

#### AUTHOR CONTRIBUTIONS

JS: prepared the manuscript and reviewed the literature. HI and TN: approved the final version of the manuscript. TY: approved the final version of the manuscript and photomicrographs formatting.

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