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Acknowledgements: The authors thank Dr Mahadevappa Mahesh for his assistance with radiation dose calculation.

Competing interests: None.

Thorax 2008;**63**:93–94. doi:10.1136/thx.2006.071100

REFERENCES

1. **Ghaye B,** Szapiro D, Fanchamps JM, *et al*. Congenital bronchial abnormalities revisited. *Radiographics* 2001;**21**:105–19.
2. **Sanchez I,** Navarro H, Mendez M, *et al*. Clinical characteristics of children with tracheobronchial anomalies. *Pediatr Pulmonol* 2003;**35**:288–91.

Pulmonary puzzle

ANSWER

From question on page 41

Direct inspection of the lesion during video assisted thoracoscopic surgery was undertaken to ensure neither pleural seeding nor pulmonary or diaphragm invasion (see supplementary video). Following this procedure, wide excision of the chest wall tumour was then performed with thoracic cage reconstruction using a titanium mesh. Grossly, the melanoma-like tumour had invaded into the sixth to ninth ribs, adjacent intercostal muscles and overlying chest wall muscles (fig 1A). Microscopically, the tumour consisted of nests and short fascicles of fusiform or polygonal cells with a clear to granular eosinophilic cytoplasm, expanding the parietal pleura with abundant intracellular and extracellular melanin pigmentation (fig 1B). Focal amelanotic tumour cell nests were also present. Immunohistochemically, the tumour cells were reactive to HMB-45 and S-100 protein. The diagnosis of chest wall clear cell sarcoma, formally known as malignant melanoma of soft parts, was then confirmed. Her postoperative course was uneventful. Four courses of adjuvant chemoradiotherapy were administered to this patient. She was disease free at her 10 month follow-up.

Clear cell sarcoma is a rare malignant soft tissue neoplasm histologically composed of nests or fascicles of cells featuring abundant pale staining or clear cytoplasm.[1–3] As a consequence of the tumour's close histological kinship with malignant melanoma, Chung and Enzinger proposed the name "malignant melanoma of soft parts" for this tumour type in 1983.[1] Such a neoplasm occurs mainly among young adults aged 20–40 years as a painless mass or swelling located in the extremities associated with tendons or aponeuroses.[1–3] Nevertheless, tumours do occur in the trunk on rare occasions.[2 4 5] Differential diagnoses include synovial sarcoma, fibrosarcoma, epithelioid form of malignant peripheral nerve sheath tumour, spindle cell melanoma and renal cell carcinoma. One of the main differential diagnoses for clear cell sarcoma is metastatic malignant melanoma, but this was excluded in our patient because no mucocutaneous lesion suggestive of this diagnosis could be found.

Clear cell sarcoma could present as a large chest wall tumour in asymptomatic young adults and should be listed in the differential diagnoses. Early diagnosis and wide excision are essential for a favourable outcome of this tumour.[3]

► A supplementary video is available online only at http://thorax.bmj.com/content/vol63/issue1

Thorax 2008;**63**:94. doi:10.1136/thx.2007.087981a

REFERENCES

1. **Chung EB,** Enzinger FM. Malignant melanoma of soft parts. A reassessment of clear cell sarcoma. *Am J Surg Pathol* 1983;**7**:405–13.
2. **Parasuraman S,** Rao BN, Bodner S, *et al*. Clear cell sarcoma of soft tissues in children and young adults: the St. Jude Children's Research Hospital experience. *Pediatr Hematol Oncol* 1999;**16**:539–44.
3. **Kawai A,** Hosono A, Nakayama R, *et al*. Clear cell sarcoma of tendons and aponeuroses: a study of 75 patients. *Cancer* 2007;**109**:109–16.
4. **Suehara Y,** Yazawa Y, Hitachi K, *et al*. Clear cell sarcoma arising from the chest wall: a case report. *J Orthop Sci* 2004;**9**:171–4.
5. **Hersekli MA,** Ozkoc G, Bircan S, *et al*. Primary clear cell sarcoma of rib. *Skeletal Radiol* 2005;**34**:167–70.

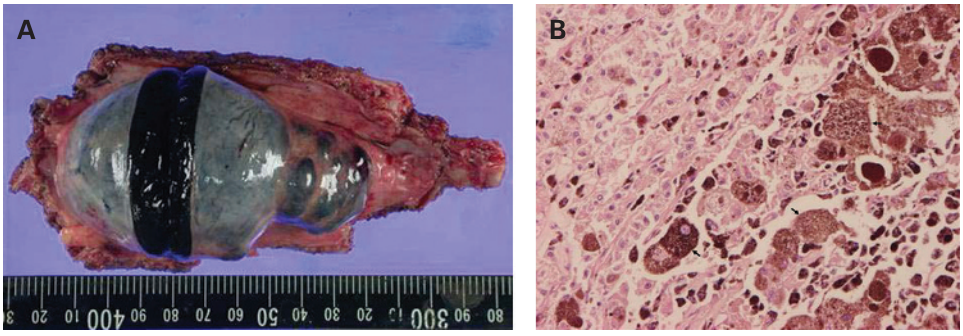

Figure 1 (A) Grossly, the melanoma-like tumour appeared to arise from the soft tissue of the chest wall with regional rib involvement. (B) Microscopically, focal clear cells and a cellular nesting appearance are noted with abundant melanin pigmentation (black arrow, haematoxylin-eosin, 100× magnification).