

Pancoast Tumour: The Role of Early Palliative Care-Case Report

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ABSTRACT

Background: Tumours of the superior pulmonary sulcus (Pancoast) still entail poor outcomes when curative multimodal therapy is unfeasible. Case: We report an 84-year-old male on long-term warfarin (INR 9.1) who presented with progressive left shoulder pain and Horner's syndrome. Thoracic CT and PET-CT revealed an apical mass infiltrating the brachial plexus, costal arches 1-4 and a left adrenal metastasis. Brain CT confirmed a 21×14 mm cerebellar lesion. Given extreme anticoagulation, frailty (ECOG 3) and stage IV disease, surgery and chemoradiotherapy were ruled out. A palliative-care-centred pathway was started; opioid rotation and psychosocial support achieved acceptable comfort until death on day 10 of admission. Conclusion: Uncontrolled anticoagulation may turn a potentially operable Pancoast tumour into an unresectable one and stresses the value of early specialist palliative care to manage neuropathic pain and decision-making in advanced lung cancer.

KEYWORDS: Pancoast tumour, unresectable non-small cell lung cancer, early palliative care, brachial plexus invasion, adrenal metastasis.

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INTRODUCTION

Superior sulcus (Pancoast) tumours account for fewer than 5 % of lung cancers yet pose distinct therapeutic challenges because of frequent invasion of the brachial plexus, ribs and vascular structures. Despite advances in neoadjuvant chemoradiotherapy and en-bloc resection, a substantial share of patients remain ineligible for curative treatment owing to late diagnosis or significant comorbidity. Contemporary real-world series reveal that only one-quarter complete the trimodal approach, whereas the remainder receive palliative radiotherapy or best supportive care. Extreme anticoagulation represents an additional hurdle, increasing the risk of peri-operative bleeding and limiting invasive options. We describe a frail octogenarian whose markedly supratherapeutic INR transformed a potentially operable Pancoast tumour into an unresectable lesion and review recent evidence (2019-2024) on palliative strategies for such cases.

CASE PRESENTATION

An 84-year-old Spanish man with a 40-pack-year smoking history and chronic warfarin therapy for atrial fibrillation was admitted on 1 November 2024 with slurred speech. Past medical history included hypertension, dyslipidaemia, osteoporosis, and a vertebro-basilar stroke in 2012. He resided in a nursing home and required a wheelchair for outdoor mobility.

On admission, oxygen saturation was 89 % on room air, Glasgow Coma Scale 15, and he demonstrated dysarthria without paresis. Laboratory tests showed INR 9.1 and C-reactive protein 129 mg/L. Chest radiograph revealed a large left apical opacity. Brain CT identified a 21×14 mm right frontal horn metastasis. Thoraco-abdomino-pelvic CT on 6 November 2024 confirmed a superior sulcus mass eroding the first four ribs and a 56 mm left adrenal metastasis.

The multidisciplinary tumour board deemed the case unresectable (T4 N0 M1b) and high-risk for any invasive procedure due to the supratherapeutic INR. Early palliative care was initiated with opioid rotation and psychosocial support. The

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patient died peacefully on 11 November 2024, ten days after admission and 19 months after the initial CT diagnosis.

Table 1. Comparison with contemporary cohorts

Variable	This case	Real-world series 2019-2024
Median age (yrs)	84	62 – 66
Sex	Male	78 – 82 % male
ECOG at diagnosis	3	1 – 2
Reason for unresectability	INR 9.1 + brain & adrenal mets	Extensive T4/N2-3 ≈ 65 %; comorbidity ≈ 15 %
Treatment given	Analgesia + PSC only	25 % trimodal; 40 % pRT; 35 % BSC
Median OS	19 months†	6 – 10 months

*Aggregated data from Hutchings 2023, McLaughlin 2023 and three European cohorts 2023-2024. From first thoracic CT (15 Apr 2023) to death (11 Nov 2024).

Table 2. Analgesic strategies for unresectable Pancoast tumours

Technique	Protocol	Relief rate	Advantages	Limitations	Reference
Hypofractionated RT	8 Gy × 1	70–80 % at 2–4 wk	Single visit, low toxicity	Planning; relief delay	Lau 2024
ESPB	20 mL bupivacaine; ± catheter	>50 % ↓ pain within 24 h	Simple, repeatable	Limited if mediastinal spread	Capuano 2024
Brachial plexus block/neurolysis	US 20 mL local anaesthetic	Immediate / weeks	Targets radicular pain	Skill-dependent; pneumothorax	McLaughlin 2023

DISCUSSION

Only a quarter of patients with superior sulcus tumours complete trimodal therapy in modern registries. Our case illustrates how extreme anticoagulation can pivot management toward palliation alone. NCCN Guidelines (v3.2024) recommend hypofractionated radiotherapy and early palliative-care referral when an R0 margin is improbable. Single-fraction 8–10 Gy schemes achieve significant analgesia and limit hospital visits. Ultrasound-guided regional techniques such as the erector-spinae plane block provide rapid pain relief but remain under-utilised. Early palliative-care integration—shown to improve quality of life and occasionally survival in

advanced NSCLC—aligned treatment with patient and family goals in this case. Key lessons: monitor INR meticulously in anticoagulated lung-cancer patients; offer hypofractionated radiotherapy promptly; expand access to regional analgesia; and involve palliative-care teams at diagnosis.

CONCLUSION

Extreme warfarin over-anticoagulation can render a Pancoast tumour unresectable. Combining early palliative-care referral, regional analgesic techniques and single-fraction radiotherapy offers optimal symptom control and preserves dignity at end-of-life.

Figures

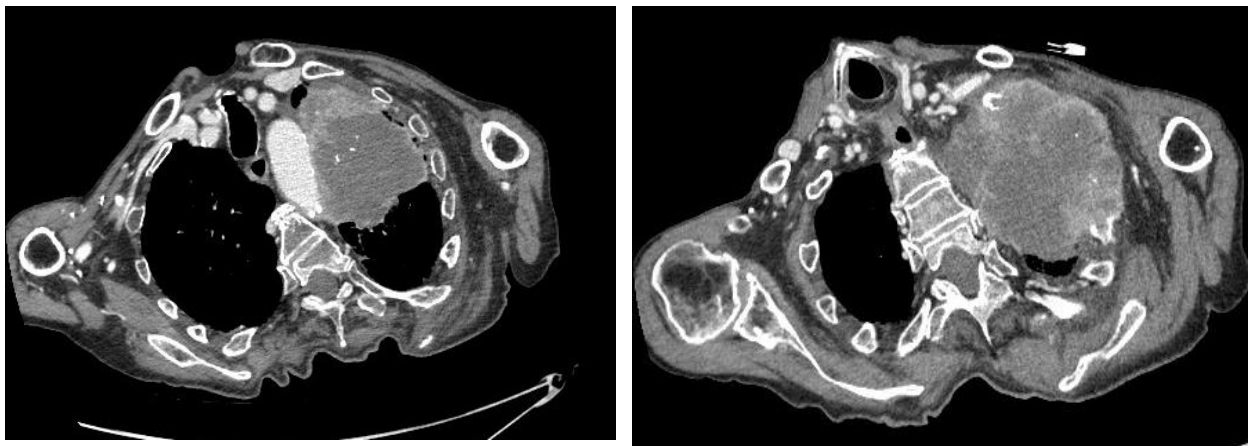


Figure 1. Axial slice showing a left apical mass invading ribs and chest-wall destruction.



Figure 2. Contrast-enhanced abdominal CT (axial). A 56 mm heterogeneous lesion replaces the left adrenal gland (arrow), consistent with metastatic spread

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