



Poster: EP07.56: Atypical Cervicobrachial Neuralgia Revealing First Rib Chondrosarcoma: Diagnostic Pitfalls and Therapeutic Challenges (Three-Case Series)

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INTRODUCTION



Costal chondrosarcoma is a rare malignant tumor. Its occurrence in the first rib poses significant diagnostic and therapeutic challenges due to the complex anatomy of the thoracic inlet. Atypical clinical presentations may delay diagnosis and impact management.

METHODS



We report a case series of three patients treated for first rib chondrosarcoma at the Department of Thoracic Surgery, Abderrahmane Mami Hospital (Ariana). All patients initially presented with atypical cervicobrachial neuralgia.

PATIENTS CHARACTERISTICS

	Number of patients	3
	Sex (F/M)	2 / 1
	Mean age	43 years (range: 32-55)
	Initial presentation	Atypical cervicobrachial neuralgia in all patients

RESULTS



All patients presented with isolated cervicobrachial neuralgia without evident thoracic symptoms.



A thoracic swelling appeared in 2 patients after a mean delay of 5 months.



Cervicothoracic imaging (CT and MRI) showed involvement of the anterior arch of the first rib in 2 cases and the posterior arch in 1 case.



The lesion was left-sided in 2 patients and right-sided in 1 patient.

IMAGING FINDINGS

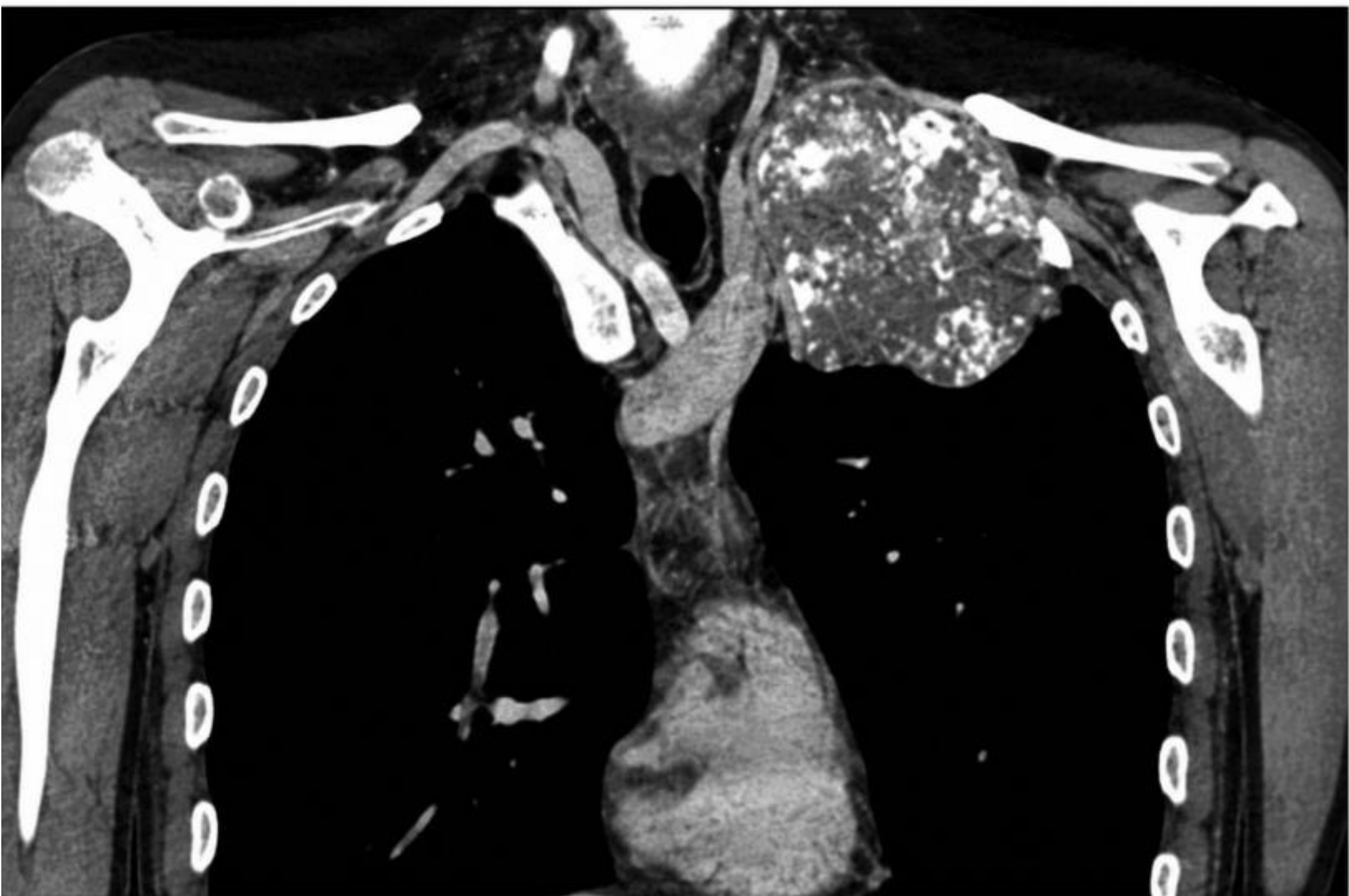


FIGURE 1. Coronal contrast-enhanced CT scan showing an invasive mass arising from the anterior arch of the first rib.

TREATMENT



1 patient underwent surgical treatment:

- En bloc resection including the medial clavicle, sternal manubrium, and adjacent lung parenchyma.
- Complete resection achieved (R0).



2 patients were not eligible for surgery due to locoregional extension and unfavorable anatomical relationships.

- Diagnostic biopsy performed, followed by palliative chemoradiotherapy.

HISTOPATHOLOGY

Histopathological examination confirmed costal chondrosarcoma in all cases.

- Grade II: 2 cases
- Grade III: 1 case



SUMMARY OF CASES

Patient	Sex / Age (years)	Side	Arch Involved	Treatment	Histologic Grade
1	F / 32	Left	Anterior	Surgery (R0 resection)	II
2	F / 45	Left	Anterior	Chemoradiotherapy (palliative)	III
3	M / 52	Right	Posterior	Chemoradiotherapy (palliative)	II



CONCLUSIONS



First rib chondrosarcoma may present as isolated cervicobrachial neuralgia without thoracic signs, leading to delayed diagnosis.



Early imaging is essential in such atypical presentations.



Complete surgical resection with negative margins remains the cornerstone of treatment when feasible, whereas unresectable cases require a multidisciplinary approach.