



# An important finding for differential diagnosis in thymic cyst mimicking pericardial cyst: punctate calcification

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## Abstract

Mediastinal cysts are usually congenital but present in adulthood. A pericardial cyst is usually localized in the right cardiophrenic region. Thymic cysts are less common and are located in the cervical region or anterior mediastinal region. While thoracoscopic excision or aspiration can be applied in pericardial cysts, excision is recommended in thymic cysts. We present a case of a thymic cyst located in the localization of the pericardial cyst and radiologically containing wall punctate calcification.

**Keywords** Thymic cyst · Pericardial cyst · Punctate calcification

## Case report

A 53-year-old female presented with chest pain. A mediastinal cystic lesion located in the right paracardiac area was detected on thorax computed tomography (Fig. 1). Radiologically, cystic lesions of the mediastinum, primarily pericardial cyst, cystic teratoma, and thymic cyst, have been considered preliminary diagnoses. The mediastinal cyst was resected thoracoscopically and histopathological examination was reported as a thymic cyst.

The calcified mediastinal cyst has been reported rarely. The best known calcified mediastinal cyst is a cystic teratoma, which is usually located anteriorly in the mediastinum

[1]. In the literature, rim calcification has been reported in some cases with thymic cysts [2]. Pericardial cysts account for approximately one-third of all mediastinal cysts. They are usually detected between the ages of 30 and 50 years [3]. Pericardial cysts are mostly simple cysts, typically uniloculated, with smooth contours, and contain clear water-like fluid. Usually they are located in the right cardiophrenic angle [3]. Diffuse wall calcification has been reported, albeit very rarely, in pericardial cysts, which cannot be differentiated from hydatid cysts radiologically [4]. The presence of punctate calcification in mediastinal cystic cases matching the pericardial cyst localization may support the diagnosis of a thymic cyst.

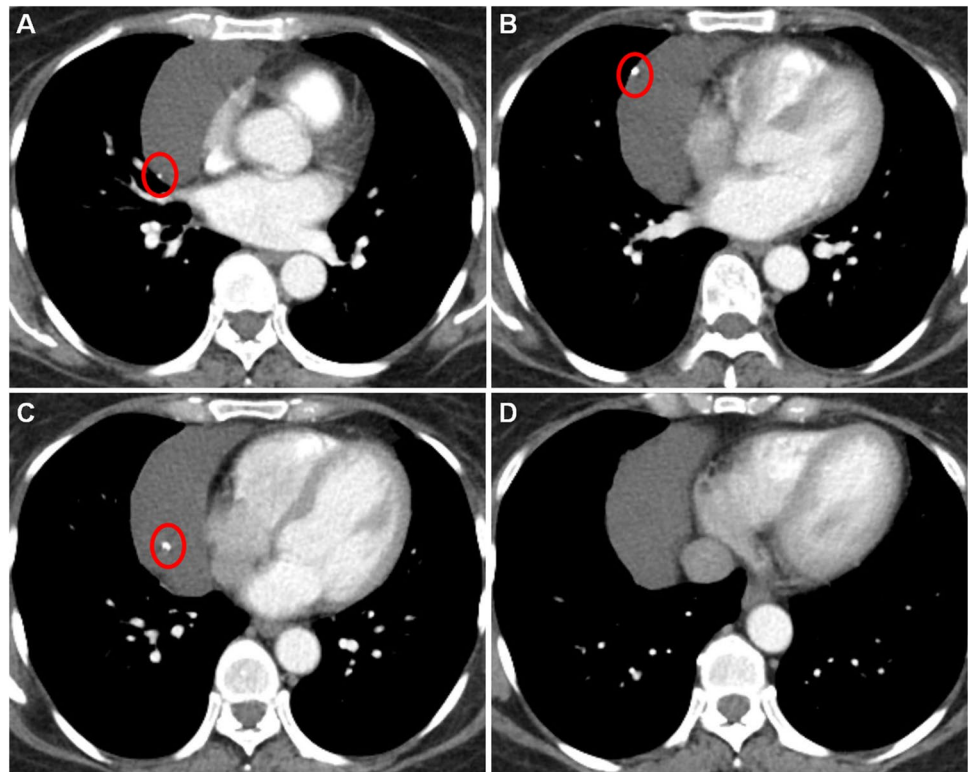
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**Fig. 1** Thoracic axial computed tomography sections show a paracardiac cystic lesion of approximately 9×3 cm in the right hemithorax (A–D). A few punctate calcifications are seen in the cyst wall (A–C)



#### Author contribution

Conceptualization: Y.A., S.O., A.B.U.

Study design: Y.A., S.O.

Defining the study: Y.A., S.O.

Project writing and management: Y.A., A.B.U.

Extensive literature search: Y.A., A.B.U.

Actually performing the study: viz. Y.A., S.O., A.B.U.

Data acquisition: Y.A., S.O., A.B.U., A.E.

Data analysis: Y.A., S.O., A.B.U., A.E.

Manuscript writing and repeated editing and reviewing of the manuscript: Y.A., A.E.

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**Data availability** The data that support the findings of this study are available from the corresponding author upon reasonable request.

#### Declarations

**Ethics approval** N/A.

**Informed consent statement** Written consent for studies and publication was obtained from the patients prior to the surgery.

**Statement of human and animal rights** The study has been performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.

**Conflict of interest** The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

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