

Case of the fortnight submission

1. Name of the member submitting: Sakthisankari S (L0156/2018/TN&PCIAPM),
Associate Professor,
PSG Institute of Medical Sciences and Research,
Coimbatore.
Email id: sakthisankari@gmail.com

2. Clinical history

A 45-year-old female presented with complaints of dyspnea on exertion. History of treated pulmonary tuberculosis. No other relevant clinical history.

Investigations

Echocardiogram- constrictive pericarditis. CT chest – minimal diffuse pericardial and pleural thickening with linear calcifications.

She underwent pericardiectomy and the specimen received in histopathology department.

3. Images

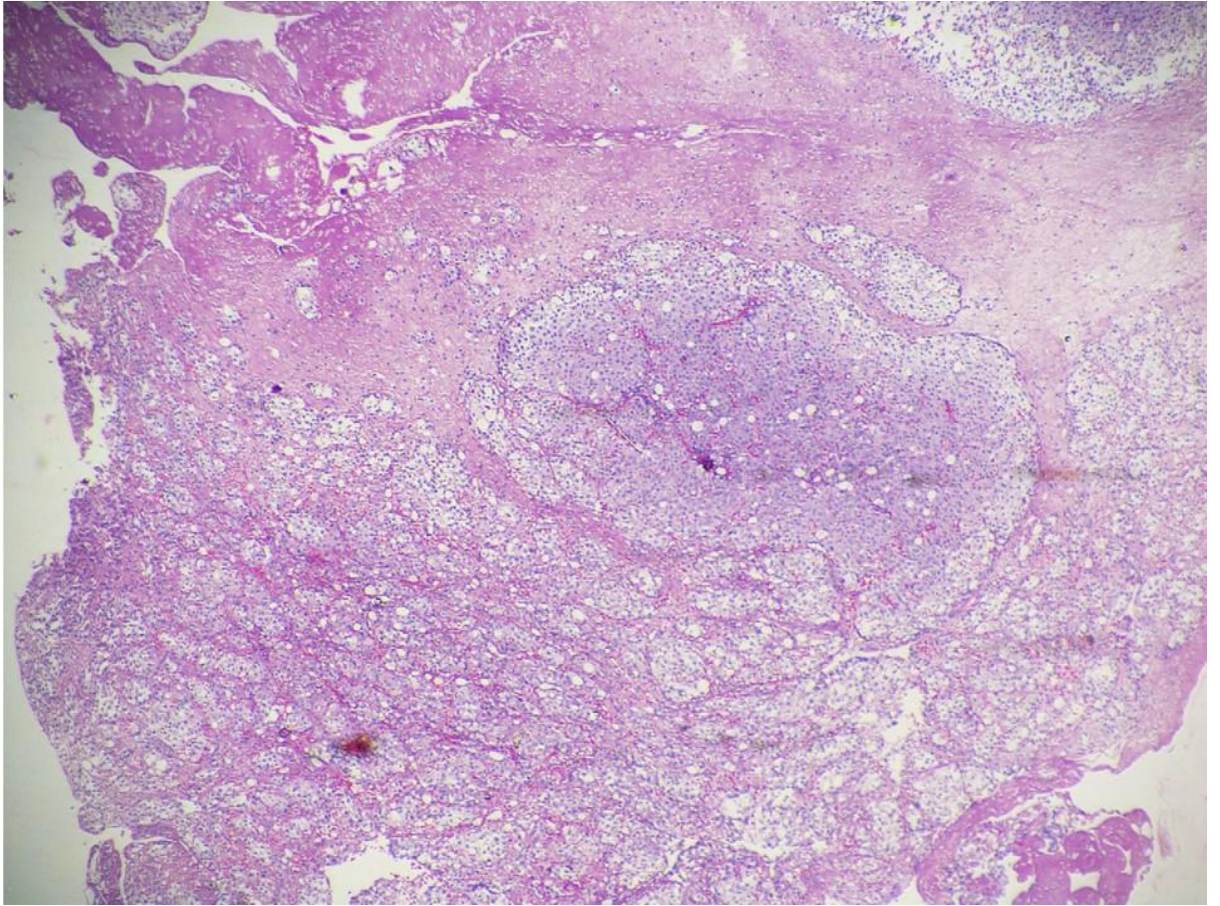


Figure 1 Nodular lesion entrapped in fibrin meshwork(H and E, 4X)

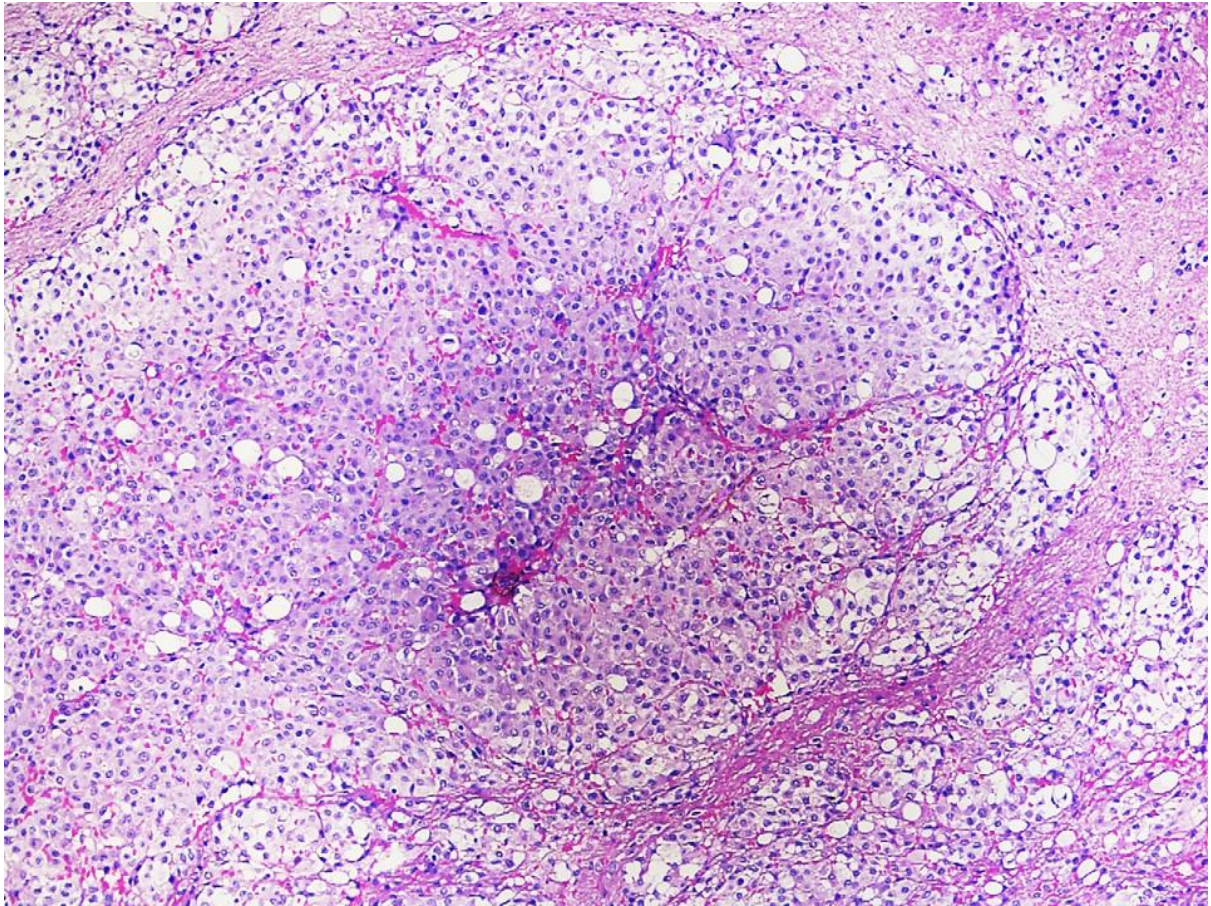


Figure 2-Monomorphous population of cells arranged in nests and lobules separated by fibrous septa(H&E, 10X)

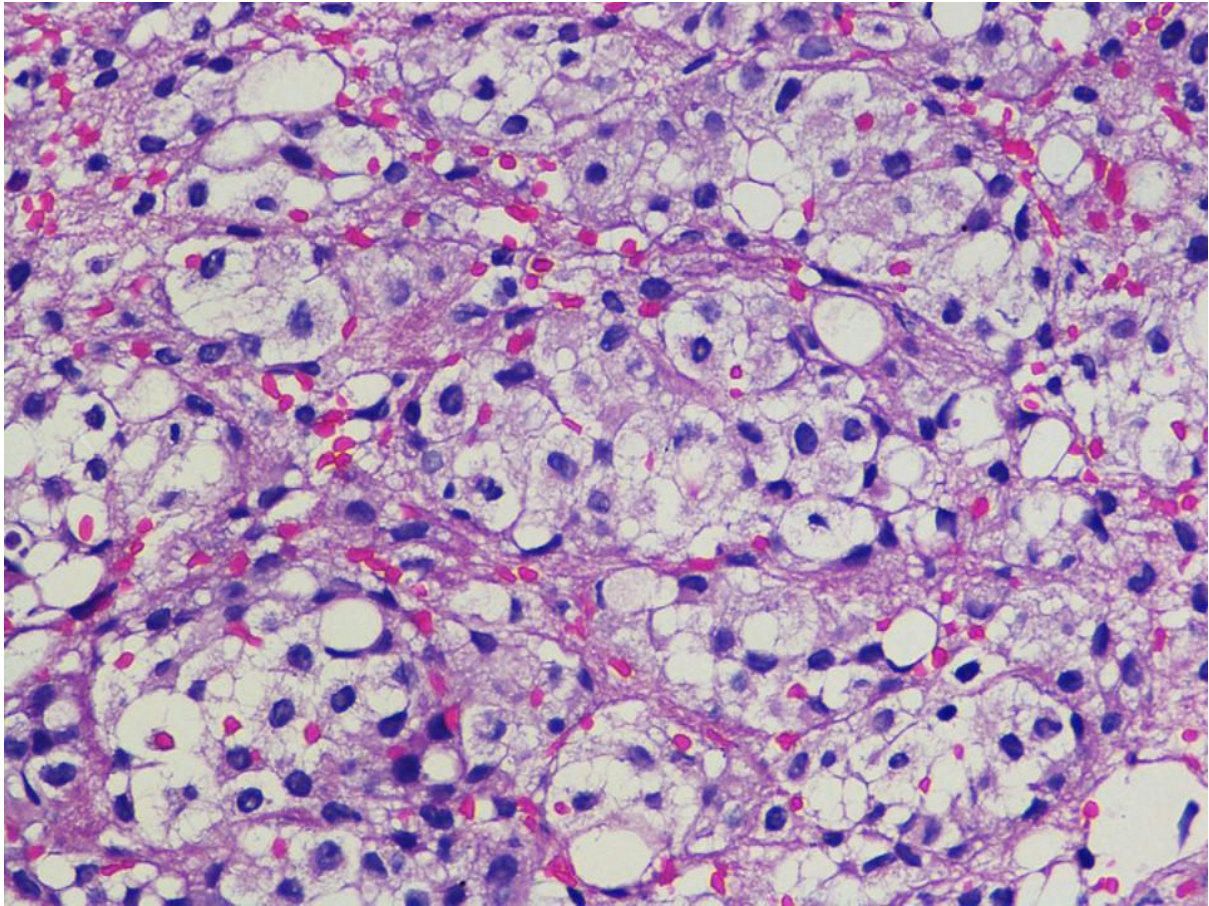


Figure 3-Cells have clear cytoplasm and bland oval nuclei showing indentation (H&E, 40X)

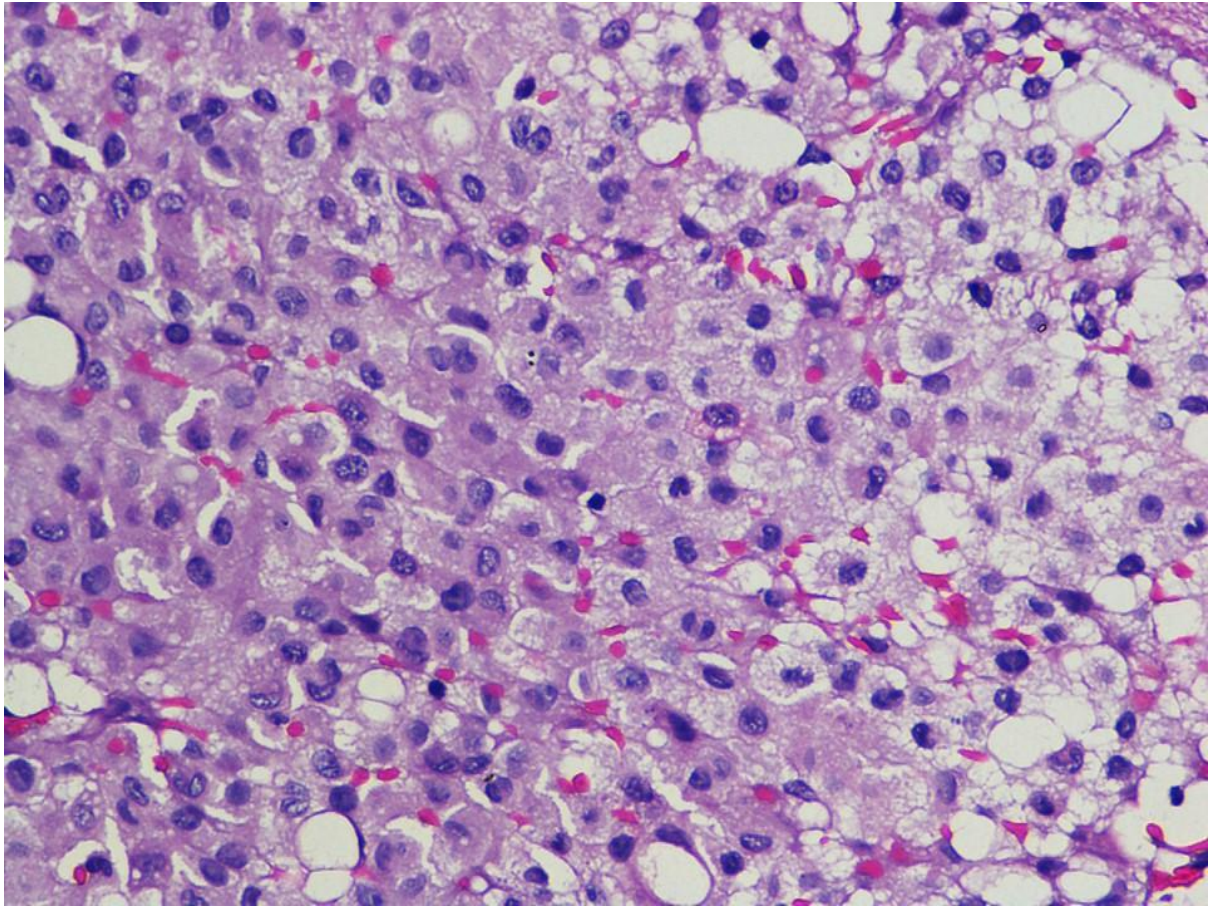


Figure 4- Cells with granular eosinophilic cytoplasm punctuated by distinct vacuolated cells (H&E,40X)

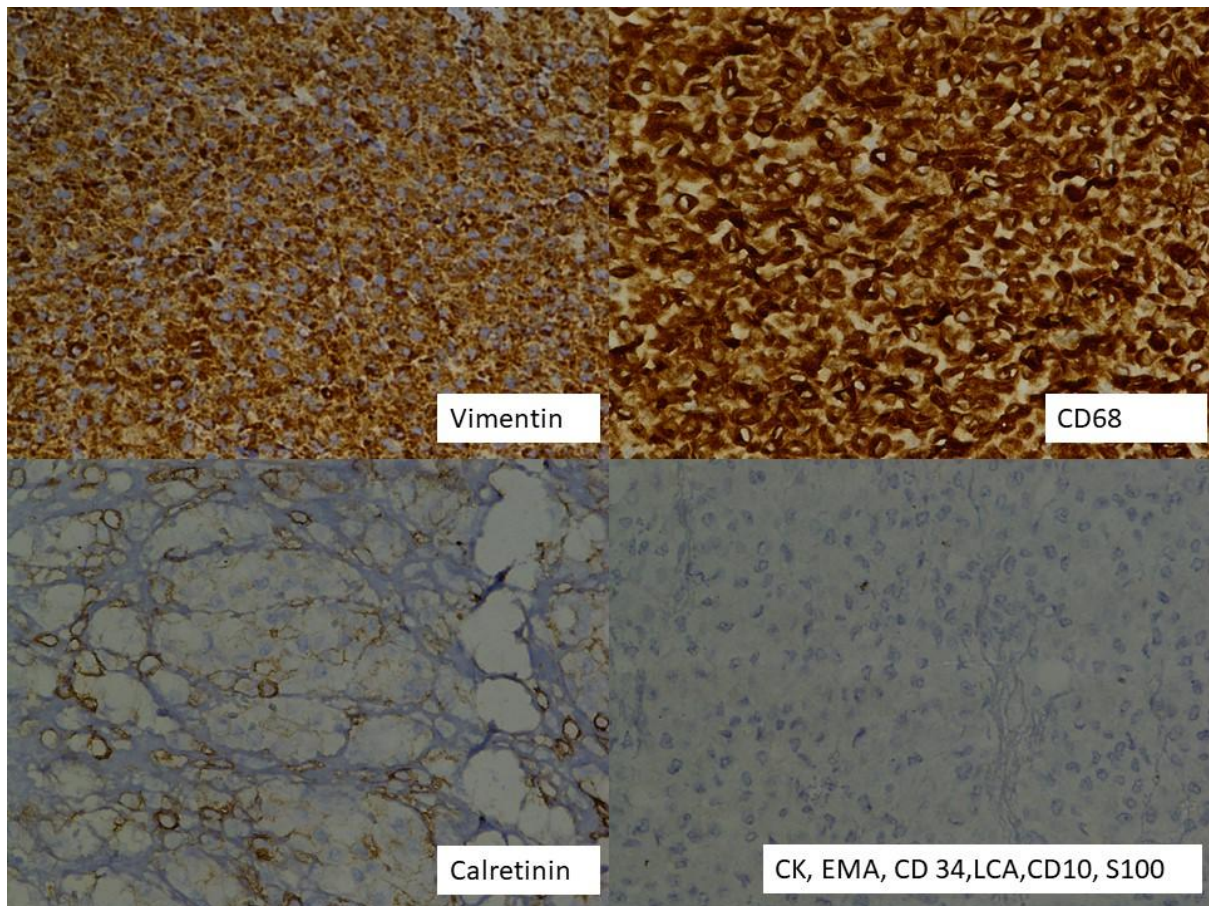


Figure 5 Immunohistochemistry features of the lesion.

Final Diagnosis: Monocytic/Mesothelial incidental cardiac excrescences

4.Learning points

1. Monocytic /mesothelial incidental cardiac excrescences (Cardiac MICE) is a very rare tumour like lesion usually detected incidentally.
2. The most frequent locations are the cardiac chambers, the cardiac valves, especially the aortic and mitral valve, or free floating in the pericardium.
3. The aetiology is yet to be determined. The proposed mechanisms are reactive and iatrogenic- produced by suctioning of pericardial cavity during cardiac surgery.
- 4.The differential diagnosis includes mesothelioma, metastatic carcinomas(clear cell carcinoma) and paraganglioma.
5. Close observation of nuclear features- bland, ovoid, indented with grooves should point to the histiocytic nature of the lesion.
6. Cardiac MICE has been included under “Histiocytic proliferations with raisinoid nuclei”.

Take home message

The significance of the lesion lies in the fact that these lesions can be misdiagnosed as neoplastic (primary or secondary) because of its solid growth pattern. It could lead to a potential confusion with mesothelioma, metastatic carcinoma and paraganglioma. MICE can be readily diagnosed without the help of ancillary studies. Being familiar with the existence of MICE is important.

References:

1. Hu ZL, Lu H, Yin HL, et al. A case of mesothelial/monocytic incidental cardiac excrescence and literature review. *Diagn Pathol.* 2010;5:40.
2. Michal M, Kazakov DV, Dundr P, et al. Histiocytosis With Raisinoid Nuclei: A Unifying Concept for Lesions Reported Under Different Names as Nodular Mesothelial/Histiocytic Hyperplasia, Mesothelial/Monocytic Incidental Cardiac Excrescences, Intralymphatic Histiocytosis, and Others: A Report of 50 Cases. *Am J Surg Pathol.* 2016;40(11):1507-1516.
3. Stuck JR, Makaryus AN. Cardiac Excrescences of Unusual Origin. *Case Rep Cardiol.* 2019;2019:8285304. Published 2019 Apr 11.