

# Dressler's syndrome diagnosed during surgery: lessons to be learned

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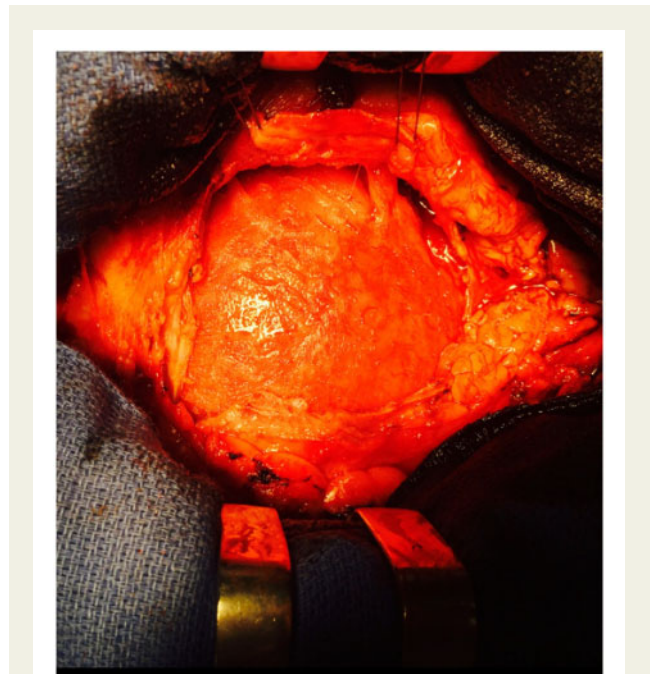
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A 54-year-old male patient with a history of ischaemic heart disease was admitted following a non-ST-elevation myocardial infarction, the day of symptom onset. Troponin I was elevated at 1530 ng/L. Coronary angiography revealed triple vessel coronary artery disease. He was referred for cardiac surgery following discussion at our Heart Team meeting.

Five days following his admission and while awaiting surgery, he started experiencing chest pain, associated with pyrexia, and mildly elevated C-reactive protein (80–90 mg/L). He had no new ECG changes. A transthoracic echocardiogram showed mildly impaired left ventricular systolic function and small regional pericardial effusion.

On the day of the surgery and upon sternotomy, he was found to have severely inflamed and thickened pericardium with macroscopic appearances consistent with severe pericarditis (*Figure 1*). The extensive amount of inflammation present made surgery extremely challenging and therefore was abandoned.

Microscopical examination of a pericardial biopsy taken post-sternotomy is seen in *Figure 2*. This showed thickened pericardium with fibrin and reactive changes in the mesothelial lining. The underlying tissue was scattered with mixed inflammatory infiltrate (lymphocytes, plasma cells, and eosinophils). The overall findings were consistent with Dressler's syndrome. A potential differential diagnosis could be post-infarct pericarditis.



**Figure 1** Pericardial appearances upon sternotomy were consistent with severe pericarditis.

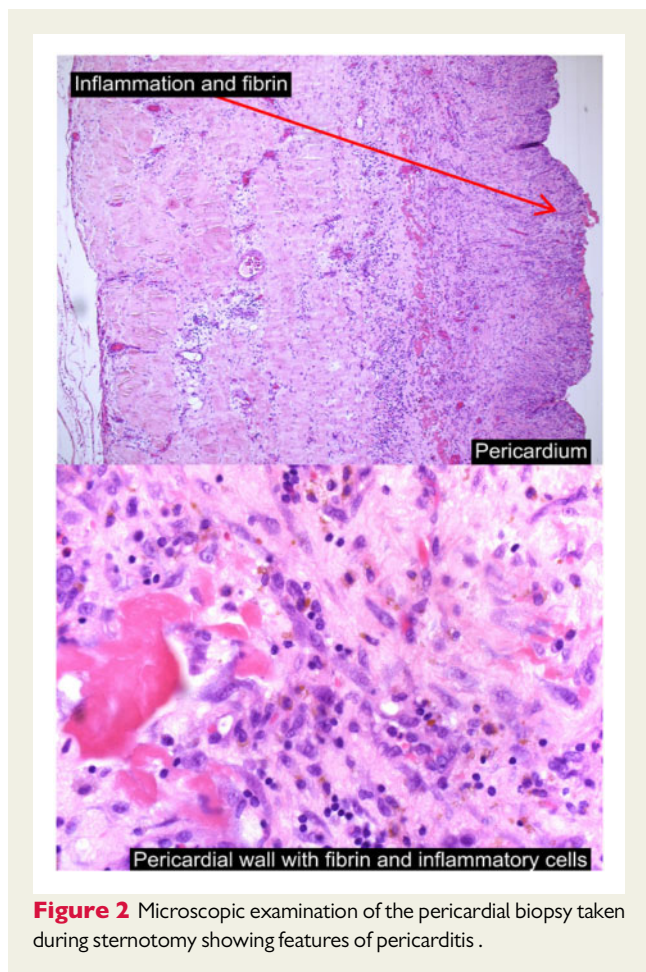
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The patient was commenced on anti-inflammatory treatment (ibuprofen 400mg TDS) which was continued for 4 weeks. The patient was not in favour of further surgery and therefore the case was re-discussed at our Heart Team meeting. Because it was felt that thoracotomy further attenuated inflammation and that the coronary disease was amenable to percutaneous coronary intervention (PCI), this was performed to treat the underlying coronary disease.

He made good symptomatic improvement within a few days of commencing treatment. Inflammatory markers normalized, and the pericardial effusion resolved. He was discharged from hospital and remains well today.

With Dressler's syndrome becoming less frequent in the primary PCI era, we strongly encourage clinicians to have a high index of suspicion in patients presenting with features of pericarditis following a myocardial infarction to allow prompt diagnosis and treatment of the condition.<sup>1,2</sup>

**Consent:** The authors confirm that written consent for submission and publication of this case report including image(s) and associated text has been obtained from the patient in line with COPE guidance.

**Conflict of interest:** none declared.

## References

1. Welin L, Vedin A, Wilhelmsson C. Characteristics, prevalence, and prognosis of postmyocardial infarction syndrome. *Br Heart J* 1983;**50**:140–145.
2. Lichstein E, Arsura E, Hollande G, Greengart A, Sanders M. Current incidence of postmyocardial infarction (Dressler's) syndrome. *Am J Cardiol* 1982; **50**:1269–1271.