



Dressler's Syndrome post Left Atrial Appendage Occlusion: A Rare Diagnoses Resurfaces

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History and Physical:

85 year old man with a history of ischaemic stroke, dyslipidaemia, gout and pernicious anaemia presented with a background of melena secondary to peptic ulcer disease and epistaxis. A CHA₂DS₂-VASc of 4, a HAS-BLED of 4 and an ejection fraction of 60% were measured. Four weeks post left atrial appendage occlusion (LAAO), the patient presented with fever, pleuritic chest pain and dyspnoea. On transoesophageal echocardiogram (TOE), a significant pericardial effusion was noted. The effusion was monitored and was found to be increasing in size. Dressler's Syndrome (DS) was diagnosed.

Imaging:

Video 1:

TOE demonstrates the LAAO device being inserted.

Video 2:

Four week post procedure TOE highlights the new pericardial effusion with no rupture of the device in situ.

Indication for intervention:

Due to the patients bleeding history and future risk of bleeding combined with the inability to tolerate oral anticoagulation, LAAO was deemed the appropriate management.

Learning points of the procedure:

DS was expected to occur in 3 to 4% of patients with a myocardial infarction (1). Since then, its declining incidence has led its current status to be deemed a disappearing entity by some more recent publications (2, 3). Along with enhanced reperfusion modalities likely reducing its frequency, questions can be asked of its potential underdiagnosis. Its presentation can mimic other conditions including pleural effusion, pneumonia, pulmonary embolism, angina, congestive cardiac failure and acute myocardial infarction (4). It is possible that a combination of underdiagnosis along with exceptional preventative measures is the source of its progressively declining rate of diagnosis.



The patient was noted to suffer from the autoimmune condition pernicious anaemia. Autoimmune conditions are frequently encountered in tandem with each other, with one paper stating the a second autoimmune condition will be present in 25% of patients (5). While gout is not autoimmune, it is inflammatory. Chronic inflammation can similarly predispose a patient to dysfunction in the inflammatory response (6). It may be theorised that in this case, the patient was at a higher risk of developing a disease like DS given their clinical history.

DS's exclusivity is further enhanced with its diagnosis post LAAO. The largest publication specifically using the AMPLATZER amulet device was published in 2017 by Landmesser et al. (7). 1088 patients were prospectively studied, 13 were noted to have a pericardial effusion, tamponade or perforation (1.2%). With 10 (0.9%) requiring pericardial drainage and 3 (0.3%) requiring surgery. Average TOE follow up was 67 ± 23 days, which encompasses the expected 14 to 42 day time frame for DS to present (1). Hypothetically due to its misdiagnosis or decline in rate, DS was never specifically noted as a post op complication.

The association of DS as a complication post LAAO is exceptionally rare. Its uniqueness may be attributable to several causal factors including its ability to mimic more common conditions, along with its declining incidence via improved revascularisation techniques.

References:

1. Leib AD, Foris LA, Nguyen T, Khaddour K. Dressler Syndrome. StatPearls. Treasure Island (FL): StatPearls Publishing
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2. Bendjelid K, Pugin J. Is Dressler syndrome dead? Chest. 2004;126(5):1680-2.
3. Tralhão A, Cavaco D, Trabulo M, Ferreira AM. The return of a disappearing entity: Dressler's syndrome after transvenous pacemaker implantation. BMJ Case Rep. 2014;2014.
4. Campos ID, Salgado A, Azevedo P, Vieira C. Dressler's syndrome: are we underdiagnosing what we think to be rare? BMJ Case Rep. 2019;12(5).
5. Cojocar M, Cojocar IM, Silosi I. Multiple autoimmune syndrome. Maedica (Bucur). 2010;5(2):132-4.
6. Pahwa R, Goyal A, Bansal P, Jialal I. Chronic Inflammation. StatPearls. Treasure Island (FL): StatPearls Publishing

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7. Ulf L, Boris S, Jens Erik N-K, Simon Cheung Chi L, Jai-Wun P, Giuseppe T, et al. Left atrial appendage occlusion with the AMPLATZER Amulet device: periprocedural and early clinical/echocardiographic data from a global prospective observational study. EuroIntervention. 2017;13(7):867-76.