Concurrent Pericardial Effusion and Erythema Nodosum- A Rare Presentation of Underlying Autoimmune Disease

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Clinical scenario

A 74-year-old Caucasian woman with a hypertensive emergency.

- TTE: large pericardial effusion (Figure 1)
- Pericardiocentesis: straw-colored fluid negative for malignancy.
- Tuberculosis (-)
- High CRP and ESR
- increased glucose level

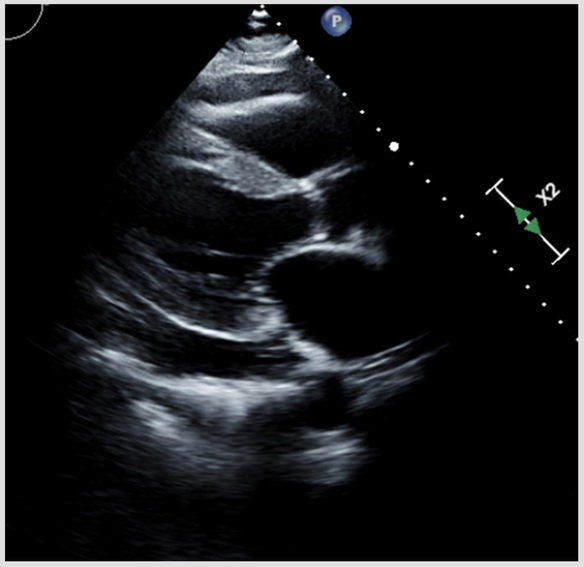
One month later, we found:

- Erythematous nodules on her right lower extremity.
- Elevated CRP and ESR -> suggesting an inflammatory process and a potential autoimmune disorder as the underlying cause.

Literature review

- Pericardial effusion and erythema nodosum are both conditions with multiple etiologies, but their coexistence is rare [1].
- Previous studies have linked erythema nodosum to various causes, including infections, malignancy, and autoimmune reactions [2].
- In this case, thorough evaluations were performed to rule out malignancy, and attention was turned to potential infectious triggers.

Figure 1: Transthoracic echocardiography of patient during admission



Unique aspects of this case

- The uniqueness of this case lies in the rare combination of pericardial effusion and erythema nodosum.
- The absence of typical symptoms related to pericardial effusion highlights the importance of comprehensive diagnostic workup in patients with multiple comorbidities.

Figure 2: The patient's lower extremity with arrows points at the subcutaneous lesions

Recommendations

- Considering the complexity of diagnosing the underlying cause of pericardial effusion and erythema nodosum, we recommend a patient-centered approach that explores potential infectious and autoimmune etiologies.
- Further testing for autoimmune markers, such as antinuclear antibodies (ANA) and antineutrophil cytoplasmic antibodies (ANCA), along with serological tests for infections like Coccidioides and Histoplasma, should be pursued [3][4].

Conclusions

- The complexity of the diagnosis of a root cause for pericardial effusion, especially in an asymptomatic patient with many comorbidities.
- TTE showed that she had both cardiac tamponade and pericardial effusion at admission despite the lack of symptoms.
- The importance of a patient-centered approach strategy instead of symptom-approaching.
- It is essential to evaluate early for autoimmune, systemic disease so that the patient can have the appropriate treatment that targets their root causes as soon as possible.

References

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