A Fatty Blood Sample

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CASE DESCRIPTION

A blood sample was drawn from a 70-year-old hypotensive man. The sample was sent to the laboratory in a plasma separator tube for a basic metabolic panel and troponin measurement. On arrival, the sample was centrifuged, resulting in the specimen shown in Fig. 1. The red material on top was fatty and viscous.

QUESTIONS

1. What could be the source of the blood sample?
2. Can the desired testing be performed?

The answers are on the next page.
ANSWERS

The sample was drawn using an intraosseous (IO) catheter placed in the right humeral head. IO catheters are to deliver fluids or drugs when vascular access is not possible, as during shock or trauma. A study comparing IO and blood samples from 9 healthy adult patients reported agreement for some laboratory values but poor correlation and large bias for others (1). Reference ranges, including troponin, have not been established for IO fluid, making the use of these results dubious (2). Testing was not performed.

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References


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