A 73-year-old woman was admitted for severe anemia 2 months after mitral and aortic cardiac valve replacement with Saint Jude mechanical prostheses. The differential blood count showed macrocytic anemia (hemoglobin 7.1 g/dL; MCV 111 fl; corrected reticulocyte count, 3.5%). The blood smear revealed marked anisopoikilocytosis, intense polychromasia, and abundant schistocytes (Figure 1, arrows). Total bilirubin was 1.76 mg/dL (indirect bilirubin, 1.36 mg/dL). LDH was markedly increased (5259 U/L) and haptoglobin reduced (6.0 mg/dL; normal, 100-300 mg/dL), which was compatible with intravascular hemolysis. The serum was brownish colored secondary to hemoglobinemia and the presence of methemalbuminemia, a product of erythrocyte fragmentation, which originates a characteristic color (Figure 2 A). The urine had a similar color (Figure 2 B). Transesophageal echocardiography revealed severe mitral periprosthetic regurgitation (Figure 3), as well as moderate aortic periprosthetic regurgitation.

Conservative treatment was attempted, but the patient required a large number of transfusions (more than 2 units of packed red blood cells per week), so surgical repair was decided on. Mitral and aortic cardiac valve replacement was performed with Carpentier-Edwards biological prostheses, with good results.

Hemolytic Anemia Secondary to Paravalvular Regurgitation

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