CASE

Using light microscopy for diagnosing the cause of a case of acute stroke

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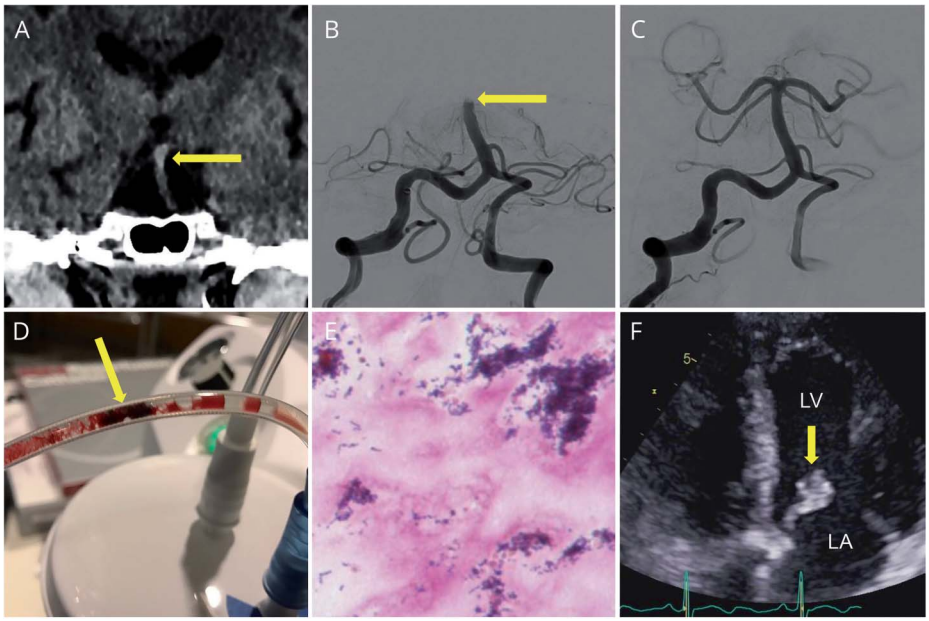
Figure Septic embolic basilar artery occlusion



(A) Noncontrast head CT shows a hyperdense occlusion in the basilar artery (arrow). (B, C) Cerebral angiograms show the basilar artery prior to and after thromboaspiration. (D) Aspiration tubing contains a fresh thrombus (arrow). (E) Light microscopy shows gram-positive bacilli in purple. (F) Echocardiogram (LA = left atrium; LV = left ventricle) shows vegetations on the mitral valve (arrow).

A 60-year-old febrile man was transferred to the emergency department after being found alone and unconscious in a park. No medical history was available. Brain CT revealed a hyperdense lesion in the basilar artery (figure, A) suggesting a thromboembolic occlusion, which was subsequently thromboaspirated (figure, B and C). The fresh thrombus was retrieved (figure, D) and urgently analyzed using light microscopy, which revealed colonies of gram-positive bacilli (figure, E). A cardiac echogram showed severe mitral valve insufficiency and vegetations on its anterior leaflet (figure, F). After mitral valve repair and a long course of antibiotic therapy, the patient's symptoms improved.

Author contributions

S. D. Hajdu: concept, design, acquisition of data, manuscript preparation and revision. M. Maillard and P. Antiochos: acquisition of data, manuscript preparation and revision. G. Saliou: supervision, acquisition of data, manuscript preparation and revision.

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Disclosure

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