Brainstem stroke in a patient with systemic lupus erythematosus and triple antiphospholipid antibody profile

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DESCRIPTION
A woman in her early 20s with a history of systemic lupus erythematosus (SLE) and triple positive antiphospholipid (aPL) antibody (Ab) profile presented to the emergency department (ED) with a 2-day history of progressive dizziness and unsteady gait. On examination, she had left-sided deficits of full facial weakness, extremity paresis, prominent dysmetria, and wide-based unsteady gait with a positive Romberg sign, and hyperreflexia.

MRI performed in the ED revealed restricted diffusion in the right hemi-midbrain on diffusion-weighted and apparent diffusion coefficient sequences (figure 1), and normal MR angiography of head and neck (not shown). She had cardiac echocardiography without evidence of patent foramen ovale, thrombus or valve vegetation. The patient was not a candidate for intravenous tissue plasminogen activator or thrombectomy, due to symptom onset greater than 4.5 hours, and lack of large vessel occlusion, respectively.

The MRI findings were consistent with acute ischaemic stroke in the setting of elevated thrombotic state. On further history it was revealed that the patient had not been compliant with her prescribed immunosuppressive therapy for 1 month prior to presentation. The diagnosis of SLE and antiphospholipid syndrome (APS) with a triple aPL Ab profile predisposes younger patients (<50 years of age) to high risk of stroke, in addition to recurrent thromboembolic events.1-6

Anticoagulation with life-long treatment with vitamin K antagonists with an international normalized ratio (INR) goal 2–3 is recommended for prevention of thrombotic events.5 7 8 In addition, antplatelet therapy with low-dose aspirin and hydroxychloroquine has been shown to convey a protective antithrombotic role.5-9 Some studies have also shown rituximab treatment may confer benefit of prevention of thromboses in SLE/APS patients; however, further studies are needed to fully confirm this therapeutic benefit.7 10 Direct oral anticoagulant (DOAC), rivaroxaban, is not recommended in triple positive APS patients due to high risk of recurrent thrombotic events, and other DOACs with insufficient studies to establish safety and efficacy.11

In the case of our patient, she was thrombocytopenic with a platelet count of 68 × 109/L. After risk and benefit discussion, warfarin with an INR goal of 2–3 was initiated. Heparin drip was initially started, then transitioned to warfarin. Her home immunosuppressive regimen of mycophenolic acid and hydroxychloroquine were reinitiated. In addition, she was treated with rituximab to augment platelet count to ensure optimal management of her SLE/APS. Once platelet count was normalised, she started aspirin therapy to further maximise benefits of stroke prevention. The patient was discharged on warfarin and aspirin, and follow-up in outpatient clinic for further management.

Our case highlights a relatively rare presentation of a brainstem stroke in a young SLE/APS patient. The presence of antiphospholipid antibodies is associated with a fivefold increase in risk of stroke and transient ischaemic attack.1 Management of secondary stroke prevention in patients with SLE

Learning points

- Patients with systemic lupus erythematosus (SLE) and APS with a triple positive aPL Ab profile are considered a high-risk group for thrombotic events, including strokes.
- Ischaemic stroke in SLE/APS is relatively rare, especially of the posterior circulation in young adults; hence, each case must be considered individually balancing the risks and benefits of therapies.
- A multidisciplinary approach including haematology, rheumatology and neurology must be involved in order to adequately address the complex clinical picture, and discussion of risks of both bleeding and thrombotic events.
and triple aPL Ab profile poses challenges in balancing the risk of bleeding versus recurrent thrombotic events. Hence, each case must be considered individually balancing the risks and benefits of therapies with a multidisciplinary approach, as in our patient’s case.

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

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REFERENCES