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LETTER TO THE EDITOR

ARDS in catastrophic antiphospholipid syndrome

Sir — PJ Maddison *et al*[1] report on the case of a 48-y-old woman who presented with the 'catastrophic' antiphospholipid syndrome (CAPS). Recently, we published a case of multiple organ dysfunction syndrome with acute respiratory failure due to alveolar haemorrhage associated with antiphospholipid antibodies (APL) in a 42-y-old woman with a medical history of antinuclear antibody-negative systemic lupus erythematosus and antiphospholipid syndrome (APS).[2]

In the report of Maddison *et al* the patient was admitted to the intensive care unit with acute respiratory distress syndrome (ARDS), with evidence of a coagulopathy and severe neurological complications. However, APL were not detected in the acute phase although increasing titres of anticardiolipin antibody were identified after several weeks. The patient developed acute respiratory failure after surgical removal of a large pelvic haematoma following a subtotal colectomy for ulcerative colitis. The clinical picture was also complicated by infection including MRSA septicaemia and pneumonia. The authors conclude that the clinical features described were typical of CAPS and they discuss the possible role of APL and microvascular thrombosis in the pathogenesis of ARDS.

ARDS is described as a syndrome of inflammation and increased permeability associated with a constellation of clinical and physiological abnormalities. It can be precipitated by a wide variety of serious medical and surgical conditions.[3] Common causes include pneumonia, aspiration of gastric contents, sepsis, severe trauma with shock and multiple transfusions.[4] It is not unlikely that ARDS in the patient described by Maddison might have resulted from haemorrhagic shock due to the extensive pelvic haematoma and subsequent MRSA septicaemia and pneumonia. We would be interested to know how many packed red blood cells were required during and after the operation.

In reports on cases of acute respiratory failure with a clinical picture of ARDS associated with high serum levels of APL, the underlying pathology consisted of multiple pulmonary emboli, interstitial infiltration, pulmonary oedema, intra-alveolar haemorrhage and major pulmonary arterial thrombosis or microthrombosis with or without capillaritis.[5,6] In our reported case, alveolar haemorrhage was diagnosed by broncho-alveolar lavage which demonstrated haemosiderin-laden alveolar macrophages and erythrocytes. The presence of APL is not usually associated with haemorrhagic manifestations and such an event occurring in a patient with the APS is usually due to deficiency of another coagulation factor, severe thrombocytopenia or the presence of severe uremia or hepatic disease. The pulmonary vasculature, however, may be susceptible to haemorrhage.[6] Computed tomography (CT) scan on admission of our patient also demonstrated peripheral thromboembolism of a subsegmental pulmonary artery in the left lower lobe. After an initial period of improvement following high-dose glucocorticoid therapy and anticoagulation with heparin, the patient's respiratory condition deteriorated further. Serial plasmapheresis and immunosuppressive therapy with intravenous cyclophosphamide dramatically improved the patient's clinical condition.

We would be interested to know if there was any evidence for alveolar haemorrhage in the case presented by Maddison *et al*.

Regarding the detection of anticardiolipin antibodies during the recovery phase and the conclusion that the patient fulfils the classification criteria for definite antiphospholipid syndrome,[7] we would like to know if during the follow-up period anticardiolipin antibodies could be detected for a second time at least 6 weeks apart.

Finally, it is also questionable whether the patients's 'critical illness neuropathy' could be related to CAPS since critical illness neuropathy is really a common feature of long intensive care unit stay, especially in cases of sepsis.

References

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Reply to letter by Wiedermann *et al*

Sir—In their letter, Wiedermann *et al* raise some queries about the attribution of the clinical features reported in our case to the antiphospholipid syndrome.

Answering their specific enquiry, our patient has demonstrated persistently high levels of IgG anticardiolipin antibodies since her recovery. However, she has had no further clinical manifestations while she has been anticoagulated with warfarin to maintain an INR of between 3.5 and 4.5. Antiphospholipid antibodies were not looked for prior to the episode that we reported and I agree that, at the time of her acute illness, she did not fulfill the classification criteria for antiphospholipid syndrome. However, these criteria, like the classification criteria for other autoimmune rheumatic diseases, are not intended for the diagnosis of the individual case and the point of our report was to raise the index of suspicion for the diagnosis of CAPS in cases of multisystem failure like ours even if antiphospholipid antibodies cannot be detected in the acute phase.

Clearly, each of the manifestations we describe carries a differential diagnosis but it was the particular combination of features which suggested CAPS in this case. Like many patients in intensive care, our patient was exposed to multiple insults that could have contributed wholly or in part to the clinical picture. The axonal neuropathy is an example. As pointed out by Wiedermann *et al*, critical illness neuropathy is a feature of a long intensive care unit stay and we have no proof that it was a manifestation of CAPS. However, ischaemia of the vasa nervorum has been postulated to be important in the aetiology of critical illness neuropathy and thus we speculate that widespread small vessel thrombosis associated with antiphospholipid antibodies might have had a role in the neuropathy in this instance.

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