Can arteriolar catheterisation induce autoimmune disease?

Cantrall et al. reported a case of polyarthritis nodosa (PAN) related to angioplasty. However, the absence of cholesterol emboli on muscle biopsy material was not mentioned in that paper. This could be an interesting fact as patients with cholesterol microembolisation, after arterial procedures, have been described as presenting features of PAN. We admitted a 66-year-old man, who underwent cardiac catheterisation and presented with malaise, fever, livedo reticularis, purpura, distal ischaemic lesions in lower extremities with normal peripheral pulses. Six weeks after the invasive procedure. On admission, he developed suprapenal, renal failure and mesenteric ischaemia, and died of multiorgan failure. The most remarkable laboratory findings were: elevated erythrocyte sedimentation rate, anaemia, mild leukocytosis with eosinophil, thrombopenia, increased nitrogen, creatine, azotemia and positive circulating immune complexes, rheumatoid latex and antinuclear antibodies. Antineutrophil cytoplasmatic antibodies, antilongitudinal basement membrane antibodies, antiphospholipid antibodies and cryoglobulins were negative. Serum complement was normal. Blood cultures and hepatitis B antigens were negative. Muscle biopsy disclosed cholesterol microembolisation in the small vessels and inflammatory vascular infiltrate.

In this patient, histological findings were consistent with multiple embolisation of cholesterol disease (MECD), but clinical and biological features strongly suggested autoimmune disease associated with vasculitis of the small and medium arteries. Although the precise pathogenesis of MECD remains uncertain, its close similarity to necrotising vasculitis point to an immunological phenomena probably triggered by a mechanical or ischaemic endothelium damage during invasive procedures. Similar case reports could be involved in the wide clinical and biological spectrum of the same underlying disease.

R. M. CABRAL SUSANO
L. C. MONTERO
F. A. FIERRO
Department of Medicine

J. F OSOROUE
Division of Immunology
Hospital General de Atarans, Universidad de Oviedo, Spain

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Alcohol, androgens and arthritis.

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*Ann Rheum Dis* 1993 52: 897
doi: 10.1136/ard.52.12.897-b

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