# Hughes syndrome: 'sticky blood'

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A quarter of a century has passed since the seminal publications by Graham Hughes and his Hammersmith team describing the 'anticardiolipin syndrome' subsequently re-named the 'antiphospholipid syndrome' or 'Hughes syndrome' (1-3).

There had been clues, notably in the world of lupus, to the existence of such a syndrome – the false positive tests for syphilis, the confusingly named 'lupus anticoagulant', for example. But Hughes' observations were pivotal for a number of reasons. Firstly, he provided detailed clinical descriptions based on large numbers of patients (4, 5). Secondly, he observed that the clotting syndrome critically affected arteries as well as veins. Thirdly, he recognised that a 'primary' antiphospholipid syndrome (APS) could occur outside of lupus. Finally, together with his team, notably Dr Nigel Harris (now Vice Chancellor of the University of the West Indies) and the late Dr Aziz Gharavi, he set up the diagnostically vital immuno-assays for the detection of antiphospholipid antibodies (aPL).

Though initial acceptance of the syndrome was slow, and in some quarters sceptical, the past 25 years has seen Hughes syndrome grow to become a major – and, critically – treatable condition recognised worldwide. "There are two new diseases of the late 20th Century, AIDS and APS" (Miguel Vilardell, Dean of the University of Barcelona).

Hughes syndrome has proved to be one of the major advances in the world of obstetrics, being the commonest treatable cause of recurrent miscarriage (6). It is a prominent cause of neurological disease, including stroke (1 in 5 of strokes under the age of 45) (7), memory loss and idiopathic epilepsy (8). Some cases of APS mimic multiple sclerosis (9). The association with migraine is so strong that Hughes syndrome has been suggested as a 'missing link' between migraine and stroke (10).

The syndrome is almost certainly still under-recognised as a cause of heart attack, especially in young women (10). No organ system is spared, the clinical spectrum including Budd-Chiari syndrome, heart valve disease, pulmonary hypertension, renal vein (and artery) thrombosis, thrombotic leg ulceration and even idiopathic (ischaemic?) bone infarctions (10).

More recent clinical observations have included the tendency to focal arterial lesions such as renal artery stenosis (and hypertension) (11) and coeliac artery stenosis and possibly important links to mechanisms of accelerated arterial disease (12, 13).

To date, there have been three 'downsides' to the story. Firstly, despite the phenomenal growth in diagnosis and research in Hughes syndrome – this "new" disease is still under-recognised by doctors and the public alike. Secondly, treatment is still, disappointingly, largely limited to aspirin, heparin or warfarin – though reports of success with selective immunosuppressants such as rituximab – for this is, after all, an autoimmune disease – are beginning to appear (14). Thirdly, and critically, the burgeoning number of aPL testing 'kits' has brought with it an almost inevitable problem of lack of standardisation. Hopefully, the efforts of colleagues in a number of collaborative studies to address this problem will be successful.

There are those who oppose disease eponyms – certainly many eponymous diseases are either rare or, at best, based on a small number of case reports. These are not criticisms which can be attached to APS. Graham Hughes' detailed clinical description of 'sticky blood' twenty-five years ago must surely rank as one of the major clinical discoveries of modern times.

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