Antiphospholipid Syndrome in the Elderly

Key words: anticardiolipin antibody, thrombosis, atherosclerosis, dementia

Antiphospholipid syndrome (APS) is now a well-recognized autoimmune disorder, characterized by the presence of antiphospholipid antibodies (anticardiolipin antibodies and/or lupus anticoagulant) and symptoms including venous/arterial thromboses, recurrent fetal loss and thrombocytopenia. A large part of APS patients are recognized as ‘secondary’, since other autoimmune disorders, in particular systemic lupus erythematosus (SLE), coexist. A smaller part of APS patients are considered to have ‘primary’ APS, with no coexisting autoimmune diseases.

Since most ‘secondary’ APS patients have SLE, it may be assumed that ‘secondary’ APS mainly occurs at young or middle ages. However, the age distribution of ‘primary’ APS is not clear. Very few studies on the age distribution of the APS patients exist. In 1987, Manoussakis et al reported that the prevalence of ant-cardiolipin antibodies is high in the elderly population (1). In this study, it was reported that among 64 apparently healthy individuals with a mean age of 80, 50% showed positive for anticardiolipin antibody. Therefore, anticardiolipin antibody may be frequently present in the elderly population, and may comprise an additional risk for occurrences of cerebral and/or coronary episodes. On the other hand, Fields et al showed that, in a study of 300 elderly individuals, 12% was positive for anticardiolipin antibody (2). In addition, Chakravarty et al reported that, when the cut-off level of anticardiolipin detection was set to mean +5 SD, none of their series of 100 elderly patients were positive (3). These reports may imply that individuals highly positive for antiphospholipid antibodies are not frequently found in the elderly. A fairly recent study by Juby et al (4), showed that while none of their 63 healthy elderly showed positive for anticardiolipin antibodies, 18.7% of their unselected frail elderly showed positive for this antibody. Furthermore, they showed that 44% of dementia patients suffering from multi-infarct type dementia had anticardiolipin antibody, compared to 20% of Alzheimer’s type patients. However, their demented patients group consisted of only 34 patients, and this association requires additional studies for confirmation. It should also be taken into consideration, that these studies were done using conventional anticardiolipin enzyme immunoassays. A large part of individuals low or mid positive for anticardiolipin antibody, in these studies, may have been positive for $\beta_2$-glycoprotein I-independent anticardiolipin antibody, which is unrelated to the increased risk of thrombosis. Furthermore, in a retrospective study, it is difficult to determine whether and how long the presence of antiphospholipid antibody preceded the occurrence of thrombotic events. Prospective studies with a large number of clearly defined subjects, using $\beta_2$-glycoprotein I-dependent anticardiolipin assays and reliable lupus anticoagulant tests are required to determine whether the presence of anticardiolipin antibodies is a risk factor for thrombosis in the elderly population.

In this issue of Internal Medicine, Kato and Kawakami (5) report an 87-year old patient who presented with cortical blindness resulting from cerebral infarction.

See also p 587.

While the symptom itself is of interest and is described in detail, the occurrence of primary APS at such a high age seems rare, and deserves attention. In most cases, only young or middle aged patients with unexplained fetal loss or thrombosis are screened for the presence of antiphospholipid antibodies, and elderly primary APS patients may be lost in the vast population of elderly patients with infarctions or dementia, occurring from general causes such as atherosclerosis. It needs to be determined whether it is desirable to measure antiphospholipid antibodies in elderly patients with infarctions or dementia. More stringent anticoagulation therapies may be beneficial to prevent the progression of dementia in patients positive for antiphospholipid antibodies. From another point of view, recent studies suggest that the presence of antiphospholipid antibodies compromises an additional risk for progression of atherosclerosis (6, 7). Premature atherosclerosis in addition to the hypercoagulable state may result in cerebral infarctions and the resultant dementia in elderly patients. Considering the large number of factors associated with atherosclerosis, a clinical study for addressing the association between antiphospholipid antibodies and atherosclerosis may be difficult to undergo, although the demand for such studies may be high.

Aimoto TSUTSUMI, MD and Takao KOIKE, MD
The Department of Medicine II, Hokkaido University School of Medicine,
Kita 15, Nishi 7, Kita-ku, Sapporo 060-8635

References
2) Fields RA, Toubbeh H, Searles RP, Bankhurst AD. The prevalence of


