Platelet aggregation in Raynaud's phenomenon

Biondi and Marasini recently reported that patients with Raynaud's phenomenon showed increased platelet aggregation induced by serotonin and adenosine diphosphate (low doses), and normal platelet aggregation induced by adrenaline.1

We also investigated adrenaline (5 μg/ml) induced platelet aggregation in 20 healthy volunteers, 27 patients with primary Raynaud's phenomenon, and 25 patients with obliterative arterosclerosis. We registered the time to the start of aggregation rather than its intensity. The mean (SD) figures were 34.2 ± 5.57 seconds in Raynaud's phenomenon and 37.8 ± 5.54 seconds in obliterative arterosclerosis. The time registered to the start of aggregation was significantly shorter in Raynaud's phenomenon compared with that in normal adults (46.3 ± 4.37 seconds (p = 0.01) and even with that in arterosclerotic patients (p = 0.05)).

It is interesting to note that both the time to the start of aggregation and its intensity are abnormal in patients with Raynaud's phenomenon. The observation of both variables may be useful in such patients.

Immature lymphocytes in transient erythroblastopenia of childhood

The report by Foot et al on bone marrow lymphocytes in transient erythroblastopenia of childhood (TEC) is important because it redirects our attention to the patterns of immature lymphocytes which may be found in children's bone marrows. Such cells were once called haematogones. A recent study by Longacre et al described detailed studies of these cells in 12 children with a variety of malignant and non-malignant disorders, among which were three cases of red cell aplasia. They showed a complex pattern of phenotypic and morphological appearances of these lymphoid cells. These observations highlight what should now be axiomatic for haematologists: cell marker studies should not be used to make a diagnosis of leukaemia, but, once such a diagnosis has been made by the usual methods, may give an indication of what sort of leukaemia it is.

Foot et al also wonder why bone marrow lymphocytosis should occur in TEC. Among a range of possibilities is the fact that normal children of this age may have up to, or more than, 40% lymphocytes in their marrow. Removal of the erythroblastic population, say 20%, could result in the lymphocytes reaching 50% of the total nucleated cell population without any apparent reduction in the cellularity of the sample, and without an absolute increase in the number of lymphocytes. “Lymphocytosis” in the bone marrow is of course relative. Nevertheless, the increased proportion of early lymphoid cells in the mononuclear cell population obtained by density separation does suggest that it may be “a consequence of an outpouring of immature lymphocytes,” unless a corresponding decrease in the absolute number of mature erythroblasts has occurred. Perhaps all three of these processes contribute to the increased proportion of immature lymphoid cells in the bone marrow of those with TEC.

Immunoalkaline phosphatase technique in renal pathology

It was a pleasure to read the article by Jackson et al regarding the immunoalkaline phosphatase technique on formalin fixed renal biopsy specimens. We are writing merely to comment on two problems outlined by the authors in their article.

The problem of weak or negative staining encountered in cases of anti-glomerular basement membrane disease (anti-GBM) may result from the fixative used; buffered formalin has a stronger effect on the anti-egyricity than acid formalin and also requires a greater digestion time to unmask the epitopes. By using formol saline, we have had much stronger staining with cryopsin and the staining of complement is usually stronger. We find C3 of more diagnostic value than IgG in cases of anti-GBM disease probably because of the lower background staining.

The other problem of spurious staining of plasma in capillary loops can be reduced or even stopped by washing the specimen in physiological saline for around one hour before fixation.

We use immunoperoxidase routinely on renal biopsy specimens as well as immunofluorescence performed in another department. Having read the article by Jackson et al we will be assessing the immunoalkaline phosphatase technique.

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*J Clin Pathol* 1991 44: 175
doi: 10.1136/jcp.44.2.175-b

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