The place of computed tomography and lumbar puncture in suspected bacterial meningitis

Editor,—We should like to respond to the recently published annotation on the place of computed tomography and lumbar puncture in suspected bacterial meningitis.

The table of contraindications to lumbar puncture in the child with suspected acute bacterial meningitis is welcome and we would agree that lumbar puncture should be avoided in these clinical situations. However, we would not accept that a contraindication to lumbar puncture amounts to a specific indication for computed tomography, which seems to be the inference. We would agree that computed tomography is indicated if the differential diagnosis of bacterial meningitis is in any doubt but this applies irrespective of whether lumbar puncture is contraindicated. We think one should endeavour to separate the contraindications to lumbar puncture from the indications for computed tomography.


Rapid diagnosis of malignancy using flow cytometry

Editor,—The paper by Williamson et al on flow cytometric diagnosis of malignancy illustrated some of the well known values of this aid to diagnosis. However, although they did not state directly that their approach provided proof of malignancy, it is worth reminding clinicians that it is usually inappropriate to make the diagnosis of malignancy by immunophenotyping alone.

Others have shown large numbers of CD10, CD19, terminal transferase (Tdt), and HLA-DR positive lymphoid cells in the bone marrows of children with non-malignant disorders such as transient red cell aplasia and thrombocytopenic purpura as well as a range of non-haemo poetic tumours which could lead the unwary into making spurious diagnoses of leukaemia. Until large numbers of reactive nodes have been studied, it remains difficult to distinguish them from a greater variety of lymphomas than T cell lymphoma and Hodgkin's disease. In cases where the diagnosis of non-Hodgkin's lymphoma (NHL) has been made by other methods, this approach does enable subclassification to be carried out. Demonstration of monoclonal surface immunoglobulin (the diagnostic hallmark of B-NHL) is virtual proof of malignancy, provided light chain restriction is found. This is one of the few circumstances in which immunophenotyping can by itself reveal malignancy in childhood.

Similarly, within the non-haemo poetic tumours this approach also has benefits and limitations. UJ13A, so useful in detecting neuroectodermal cells, will also react with Ewing's sarcoma1 and rhabdomyosarcoma2 as will antibodies to vimentin which also react with lymphoid tumours. If carefully constructed panels are used the results may still help the pathologist/haematologist assign lineage.

These caveats should be appreciated by clinicians who should resist the temptation to rely too heavily on surface marker studies, at the expense of histological and cytological appearances, as an indication of malignancy. I fully support the addition of immunophenotyping of fresh cell suspensions to the battery of currently available diagnostic techniques.


Secondary thrombocytosis

Editor,—We read with interest the paper by Vora and Lilleyman on secondary thrombocytosis in children.1 As stated by the authors in their article, several recent studies have focused on the role of interleukin-6 (IL-6) in stimulating platelet production: in particular, thrombocytosis was observed in IL-6 transgenic mice,2 and administration of IL-6 in primates induced bone marrow thrombocytosis and increased platelet counts.3 One of the disease conditions associated with marked increase in platelet count is systemic onset juvenile chronic arthritis (JCA). We have recently analysed IL-6 concentrations in patients with systemic onset JCA, using a hybridoma growth assay with the murine hybridoma B9, and found significantly increased serum and synovial fluid IL-6 concentrations in patients with active disease.4 Serum IL-6 concentrations were significantly correlated with platelet counts (n=38, r=0.554, p=0.001). The determination coefficient (r²) for the association of platelet counts with serum IL-6 concentrations implied that approximately 31% of the variability of platelet counts could be explained by serum IL-6 concentrations. Therefore, our data support the hypothesis that increased IL-6 production plays a part in the thrombocytosis observed in patients with systemic onset JCA, and possibly in other inflammatory diseases.

FABRIZIO DE BENEDETTI ALBERTO MARTINI
Clinica Pediatratica, IRCCS Policlinico San Matteo,
P. La Golgi 2, 27100 Pavia, Italy