noted to the nearest tenth of a millimetre. Then the slide is moved to align the deepest part of the tumour to the same fixed point and a second reading taken. The tumour thickness can then be derived by subtracting one reading from the other (Figure).

This is a simple and reliable method. The measurement can be made using any combination of objective and eyepiece magnification and tube length. No conversion factors or calculations have to be used, thus eliminating further sources of error. The measurement is only made to the nearest tenth of a millimetre but in most cases the lesion can be easily assigned to one of the three prognostic categories (<0.76 mm, 0.76–1.50 mm and >1.50 mm) without measuring to the nearest hundredth of a millimetre. The only problem we find amongst our colleagues is uncertainty regarding the working of Vernier scales. These were invented by the Burgundian Pierre Vernier (c. 1580–1637) and described in 1631 in his book La Construction, l’usage, et les propriétés du quadrant nouveau de mathématiques. Briefly, there is a short scale 9 mm long, divided into 10 equal 0.9 mm long parts, sliding on a scale graduated in millimetres. When one examines the short scale one of its 10 graduations will be exactly in line with a mark on the long scale. This then gives the decimal place value between 0.1 and 0.9 mm.

If one is unsure of the technique, or of the accuracy of the scales on a particular microscope, then a slide bearing a known standard scale can be employed, as one would in calibrating an ocular micrometer. We hope that histopathologists will now be encouraged to use this simple technique to report the thickness of melanomas in all cases.

N KIRKHAM
DWK COTTON
Pathology Department, LE56,
Southampton General Hospital,
Southampton SO9 4XY

References

Routine bone marrow aspirations during maintenance treatment in acute lymphoblastic leukaemia do not improve survival

In the paper by Franklin1 the value of routine bone marrow aspirations in terms of their contribution to prognosis has been questioned.

In 109 children with acute lymphoblastic leukaemia diagnosed in our department between January 1976 and June 1982 and treated with ALL-AIEOP (Italian Paediatric Cooperative Group for Therapy of Acute Leukaemia) 7601, 7602, 7901, 7902, and 7903,2 1308 routine bone marrow aspirations and 108 non-routine bone marrow aspirations were performed during maintenance treatment and after stopping treatment. Routine bone marrow aspirations were carried out at two to three monthly intervals; non-routine bone marrow aspirations were performed when haematological relapse was suggested by any of the following: peripheral blood count anomalies (circulating blast cells, haemoglobin concentration less than 10-5 g/dl, lymphocytosis more than 70%, platelet count less than 120 × 10^9/l), hepatomegaly (liver > 3 cm) or splenomegaly (spleen > 1 cm), or both, not attributable to infection, malaise, bone pains, or extramedullary relapse.

Nine out of 1308 routine bone marrow aspirations (0.7%) indicated relapse and 21 out of 108 non-routine bone marrow aspirations (19.5%) confirmed the suspicion of haematological relapse (p < 0.001). Apart from the presence of circulating blast cells, the predictive parameters for haematological relapse were: thrombocytopenia (p < 0.003), bone pains (p < 0.004), hepatomegaly (p < 0.04), and splenomegaly (p < 0.02). Of 30 relapsed patients, 27 died and three are surviving (follow up to 31 December 1982) after 15, 12, and 24 months. (In the last two cases bone marrow transplantation was performed after the second remission.) The mean survival duration after haematological relapse was 8.7 ± 5.5 months in the routine bone marrow aspiration group and 9.5 ± 8.1 in the non-routine bone marrow aspiration group (NS).

Our study which was carried out on a considerable number of bone marrow aspirations confirms that routine bone marrow aspiration is not an effective diagnostic procedure for detecting haematological relapse. The duration of survival was the same both for patients whose relapse was detected by routine bone marrow aspiration and for those in whom relapse was suspected clinically.

In conclusion, as there is no evidence of any advantage from routine bone marrow aspirations, which are a stressful procedure for children, their periodical performance should be discontinued.

ROBERTO MINIERO
GUIDO PASTORE
PAOLA SARACCO
Department of Paediatrics,
University of Turin
Pzza Polonia 94, 10126 Torino,
Italy

References

Book reviews


There is a tendency amongst oncologists to categorise cases of non-Hodgkin’s lymphoma according to their prognosis and to
Routine bone marrow aspirations during maintenance treatment in acute lymphoblastic leukaemia do not improve survival.

R Miniero, G Pastore and P Saracco

*J Clin Pathol* 1984 37: 230
doi: 10.1136/jcp.37.2.230-a

Updated information and services can be found at:
http://jcp.bmj.com/content/37/2/230.1.citation

**Email alerting service**

Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

**Notes**

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/