CORRESPONDENCE

Modification of the alcian blue method for marking breast biopsy specimens

We totally agree with Drs Birch, Jeffrey, and Andrews on the utility of alcian blue as a method of marking breast biopsy specimens and wish to describe a local modification. This entails placing the dipped specimen on a locally produced grid to allow the appropriate sectors for block selection to be chosen and sampled after specimen mammography. This grid is similar to the previously described grid.[2] Covering the grid with kitchen plastic wrap prevents the specimen from moving on the grid before block selection and allows macroscopic description of margins selected to be compared with the radiographic margins: this avoids some of the problems encountered when a grid is not used. We consider that this simple method allows inexperienced staff to carry out handling without compromising the safety of patients.

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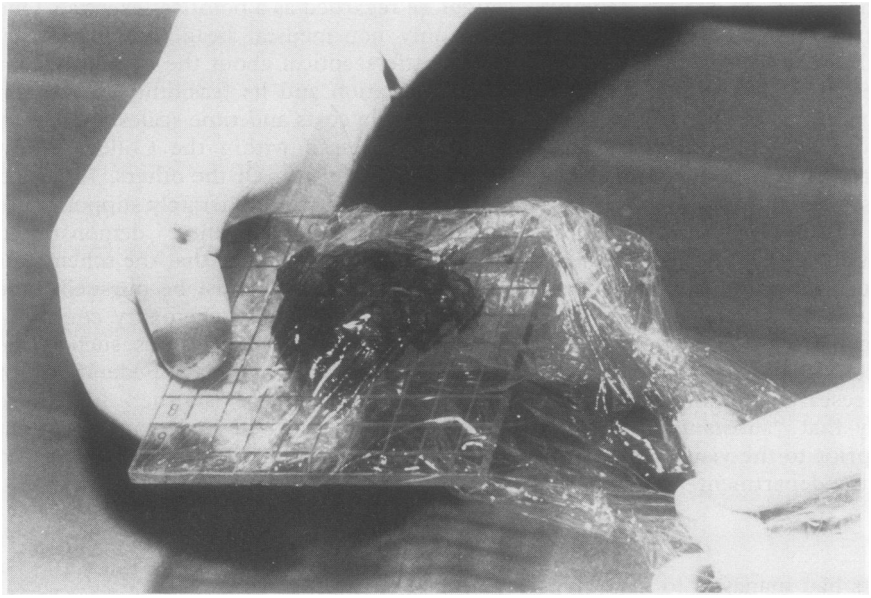
1 Birch PJ, Jeffreys MJ, Andrews MIJ. Alcian blue: reliable rapid method for marking resection margins. *J Clin Pathol* 1990;**43**:608.
2 Champ CS, Mason CH, Coghill SB, Robinson M. A perspex grid for localization of non palpable mammographic lesions in breast biopsies. *Histopathology* 1989;**14**:311–5.



Breast resection marked with alcian blue, placed on localisation grid, and covered with plastic wrap

Hepatitis C virus and transfusion transmitted liver disease

In his comprehensive review on hepatitis C virus and transfusion transmitted liver disease, Underwood states that, "exclusion, by antibody testing, of HCV positive blood donors should reduce very substantially the risk of transmitting this virus to transfusion recipients." He fails, however, to address some very important points:

1 Several of the current procedures for inactivation of viruses in fractionated blood have been shown to prevent non-A, non-B hepatitis (NANBH) transmission to recipients.[1 2] Confidence in inactivation methods is so high that the Food and Drugs Administration does not require plasma destined for fractionation to be tested for anti-HCV (AABB News Briefs, March 1990, Vol 3, No 3).

2 The incidence of post-transfusion NANBH is significantly lower in the United Kingdom compared with the USA. Furthermore, since the introduction of methods of self-exclusion for subjects at risk of transmitting HIV, the incidence of post-transfusion NANBH has decreased considerably in all countries. For example, in the USA the incidence has decreased from about 10% or more to less than 1%. The proportion of NANBH attributable to transfusion has decreased by 69% since 1985.[3]

3 Several workers have shown that a proportion of donors who test positive for anti-HCV do not transmit NANBH.[4] Hence it is important that supplementary tests to discriminate between infectious and non-infectious anti-HCV positive donors are available before mandatory screening of blood donors is introduced.

4 Two commercial companies have developed screening tests for anti-HCV. These tests are expensive, however; the current price is more than £2 per test when reagents are purchased in bulk. In addition, the currently available supplementary recombinant immunoblot assay is extremely expensive at more than £20 per test. With two million donations collected annually in the United Kingdom, the reagent cost of screening all donations would be over £4m. Since 0·3–0·6% of donations are anti-HCV positive, an additional £200 000 would be required for supplementary tests. If confirmation by the polymerase chain reaction was also required the cost would rise substantially and the strain on laboratory services would be enormous.

5 Counselling anti-HCV positive donors will be an expensive and time consuming procedure. What will we tell our donors? That they test positive for an assay whose clinical importance we do not know?

In these times of financial constraints, with ward closures and long waiting lists, should we not evaluate the problem pertaining to this country before making decisions based on data from others where the incidence of post-transfusion NANBH might be much higher? The economic impact of screening would be enormous. In the North West Thames Region testing for anti-HCV, performing supplementary tests, counselling and replacing donors found positive would cost in the order of £700 000 a year.

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1 Skidmore SJ, Pasi KJ, Mawson SJ, Williams MD, Hill FGH. Serological evidence that dry heating of clotting factor concentrates prevents transmission of non-A, non-B hepatitis. *J Med Virol* 1990;**30**:50–2.
2 Study Group of UK Haemophilia Centre Directors on Surveillance of Virus Transmission by Concentrates. Effect of dry heating of coagulation factor concentrates at 80°C for 72 hours on transmission of non-A, non-B hepatitis. *Lancet* 1988;ii:814–16.
3 Alter MJ. Disease transmissions: The relationship of blood transfusion to other modes of transmission. In: Fairchild VD, Holland NR, Lyons AR, eds. *Autologous blood transfusions. Principles, policies and practices.* Alexandria, Virginia: American Blood Commission, 1989:4–6.
4 Van der Poel CL. Infectivity of blood seropositive for hepatitis C virus antibodies. *Lancet* 1990;**335**:558–60.

Professor JCE Underwood comments:

These comments and others have been made elsewhere by Drs Contreras and Barbara[1] and have been responded to.[2] In my opinion the morbid consequences of HCV infection and the cost of management are sufficiently great to justify measures to reduce as much as possible the risk of transmitting this virus by the administration of blood and blood products. These measures should include not only the procedures for virus inactivation cited by Contreras *et al*, but also the screening of donors, currently by antibody testing, advocated as a necessary step in "good manufacturing practice" of plasma fractions.[3 4]

Although HCV antibody positive donations are relatively rare in the United Kingdom, they may, nevertheless be responsible for a high proportion of the residual cases of post-transfusion hepatitis. A substantial reduction in the risk of this iatrogenic event is, therefore, anticipated to follow the introduction of screening. The safest clotting factor concentrates are likely to be achieved through a prudent combination of donor selection and viral inactivation.[2]

1 Barbara JAJ, Contreras M. Prevention of hepatitis C virus infection in haemophiliacs. *Lancet* 1990;**336**:62–3.