

Letters to the Editor

Contamination of blood cultures

Sir,
 Shahar and colleagues¹ suggest that contamination of blood cultures is usually introduced during laboratory handling rather than at the time of venepuncture. If this hypothesis is correct, few contaminants should be detected on the first occasion that blood culture bottles are examined, whilst it might be expected that similar numbers of contaminants would be encountered at each subsequent examination (since there is an equal chance of introducing contaminants each time a blood culture bottle is processed). We have investigated the time taken for detection of growth in significant and non-significant blood cultures in our laboratory.

Blood culture sets, consisting of an aerobic and an anaerobic bottle, were examined using either a BACTEC 460 or BACTEC NR730 analyser. Aerobic bottles were examined twice daily for the first 48 h after receipt: thereafter both aerobic and anaerobic bottles were examined once daily for a further 5 days.

Growth was detected in one or both bottles from 1819 sets of blood cultures between 01.08.89 and 30.06.91. A total of 911 (50.1%) sets yielded significant isolates, 813 (44.7%) contained only contaminants, 42 (2.3%) contained both significant and non-significant isolates, and in 53 (2.9%) cases the significance of the isolates could not be judged. Table I shows the time taken for detection of growth of significant isolates and contaminants. As in previous studies, the mean time for detection of growth of true pathogens was shorter than that for contaminants.¹⁻³

Table I Time taken for detection of growth of significant and non-significant blood culture isolates

Duration of incubation (days)	Number (%) of isolates detected	
	Significant	Contaminant
1	606 (66.5)	242 (28.8)
2	156 (17.1)	218 (26.8)
3	82 (9.0)	127 (15.6)
4	34 (3.7)	73 (9.0)
5	14 (1.5)	45 (5.5)
6	11 (1.2)	49 (6.0)
7	8 (0.9)	59 (7.3)
Mean	1.6	2.8

However, many more contaminants were detected during the first 3 days of incubation than on subsequent days.

Whilst laboratory-introduced contamination may account for most of the contaminants detected on the later days of incubation, our data suggest that many of the contaminants detected during the first 3 days after receipt are more likely to have been introduced at the time of venepuncture.

James W. Gray
 Stephen J. Pedler
 Department of Microbiology,
 Royal Victoria Infirmary,
 Queen Victoria Road,
 Newcastle-upon-Tyne NE1 4LP, UK.

References

1. Sharer, E., Wohl-Gottesman, B.-S. & Shenkman, L. Contamination of blood cultures during venepuncture: fact or myth? *Postgrad Med J* 1990, **66**: 1053–1058.
2. Ispahani, P., Pearson, N.J. & Donald, F.E. Blood cultures: eight years' experience of a conventional in-house system and trends in antimicrobial susceptibilities. *Med Lab Sci* 1989, **46**: 295–304.
3. Beaman, K.D., Kasten, B.L. & Gavan, T.L. Rate of detection of bacteraemia: retrospective evaluation of 23,392 blood cultures. *Cleve Clin Q* 1977, **44**: 129–136.

Homonymous hemianopsia and the 'door sign'

Sir,

Homonymous hemianopsia, independently of its origin, is often accompanied by additional neurological deficit, namely ipsilateral hemiparesia. Usually the patient is unable to perceive (and express) his/her visual defect (anosognosia).¹

I have found in several cases a sign which I do not recall having seen previously published: the loss of an important peripheral area of the visual field, of which the patient is unaware, facilitates hitting door frames with the appearance of a characteristic linear wound in the forehead and for which I propose the term 'door sign' (Figure 1). I believe that the presence of such a lesion in a hemiparetic patient should strongly suggest an associated ipsilateral homonymous hemianopsia.

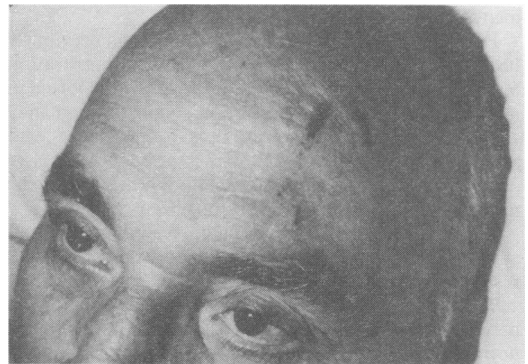


Figure 1 Characteristic linear wound.

J. Martínez L. de Letona
 Hospital Puerta de Hierro,
 Universidad Autónoma de Madrid,
 Spain.

References

1. Walsh, F.B. & Hoyt, W.F. *Clinical Neuro-ophthalmology*, Vol. I, 3rd ed. Williams and Wilkins, Baltimore, 1969, p. 107.