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Blood culture symposium

The blood culture symposium in the September 1983 issue of the Journal is of interest.¹ However, may I comment on one aspect of the contribution by BI Duerden on the clinical significance of bacteraemia (p 964). Isolation of *Salmonella typhi* from the blood of a pyrexial patient is undoubtedly of significance in establishing a diagnosis of acute typhoid fever. However, although not overtly stated, the impression is given that isolation of *Salm typhi* from blood always has such significance. This is far from being true. *Salm typhi* may be recovered from whole blood or blood clot cultures in patients suffering from other disease states and from individuals without symptoms.^{2,3} Such transient bacteraemias occur in typhoid carriers who are intravascular shedders of the organism, probably derived from reticuloendothelial sites where a stable host-parasite relationship has been established. Many of these patients do not excrete organisms either in faeces or in urine. The bacteraemia is not associated with pyrexia and indeed it is quite common to isolate *Salm typhi* from blood of patients with typhoid fever who are convalescent, afebrile and symptom free. It is probable that intravascular shedding of organisms from such sites is much more common than is realised simply because routine blood cultures are not done on potential typhoid carriers.

Experimental animal models in mice infected with *Salm typhimurium* show that an analogous situation exists in this host-parasite relationship.³

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Granulomata in bladder and prostate after previous operations

I was interested to read the article by Lee and Shepherd describing necrotising granulomata following prostatic resection,¹ since I have taken a dilettante interest in this subject for some 10 years following the discovery of a similar granuloma in a cystectomy specimen which subsequently proved to be secondary to a previous transurethral resection of a bladder tumour. My experience of prostatic and bladder lesions after transurethral resections gathered over the succeeding eight years was presented at the 1980 International Congress of the International Academy of Pathology in Paris² and is essentially in accord with that of Lee and Shepherd.

In my series of 17 cases of tissue from repeat transurethral resections of prostate the time interval varied between three days and four years. In the first two or three weeks areas of frank infarction were seen with adjacent foci of squamous metaplasia identical to that seen in spontaneously occurring prostatic infarcts. Granulation tissue also present in these early cases contained occasional foreign body giant cells and many eosinophils such that a diagnosis of eosinophilic prostatitis was seriously considered on more than one occasion before the complete history was elicited. Necrotising granulomata identical to those described by Lee and Shepherd were seen in specimens from 18 days onwards and I interpreted the serpiginous central areas of necrosis as the remnants of the areas of infarction and this was borne out by the appearances seen in cystectomy specimens where it was possible to identify the precise location of the granulomata. I agree that such granulomata are sufficiently characteristic to make the true diagnosis and to distinguish them from those seen in granulomatous prostatitis, either tuberculous or idiopathic in nature.

Similar pathological features were seen in bladder, occasionally in repeat transurethral resection specimens but more commonly in cystectomy specimens. Again cases with a recent resection had appearances which could be mistaken for eosinophilic cystitis whilst those seen a month or more later often had necrotising granulomata superficially resembling tuberculosis. I am unable to explain the presence of large numbers of eosinophils in the early lesions although I have noted a comparable histological appearance in resections of rectum in which there has been previous sigmoidoscopic biopsy. It is also interesting that in a recent study of eosinophilic cystitis³ muscle necrosis was a prominent feature and many of the cases had had previous operative interference.

Second transurethral resections of prostate are usually indicated by persistence of obstructive symptoms (possibly due to inadequate initial resection by junior staff) whilst in the bladder it often occurs at repeat endoscopy for persistent haematuria. In this situation exuberant granulation tissue may simulate tumour and care has to be taken not to be bullied into this diagnosis by aggressive urologists. The relative frequency of these iatrogenic lesions in transurethral resection specimens underlines once again the importance of adequate data storage and retrieval in histopathology departments. It is not good enough to rely on the clinician to provide information of previous histological specimens and only when departments have systems capable of automatically retrieving previous reports (with or without sections) on all cases coming to reporting will possible errors in diagnosis like those described above be avoided.

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