

Figure (a) Control section—stained but without sheep erythrocytes; (b) Amido Black staining following exposure of tissue section to 'sensitized' sheep erythrocytes. $\times 30$.

present in the underlying tissue which stain a very pale colour and occur in a different plane of focus.

References

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Letter to the Editor

Coulter Counter Model 'S' System

The Coulter Counter Model 'S' system is of undoubted importance in the routine haematology laboratory. Its design is still evolving as improvements to it are continually being made which enhance its reliability and performance. I wish to point out a potential flaw in the design and suggest how it might be corrected.

The self-contained pneumatic unit supplies the operating vacuum and pressures to the diluter unit, which in turn is essen-

tially a micropneumatic system designed to give fine control. The micro components (Wade Couplings Ltd) ought to be driven by dry particle-free air. However, in the Coulter S system they are frequently driven by moist air, which may of course contain dissolved, and perhaps corrosive, solutes. (In our instrument crystalline material accumulates in the pressure storage tanks, and at times the pressure transmission tubes have been found to contain water.) Further, the efficiency of the components, and in particular of the shuttle valves that control the mixing and transfer rates, becomes impaired. A typical consequence

of the shuttle valves being faulty is shown in the figure. What is not shown is that the fault may take hours to pinpoint and correct, even by an experienced engineer.

I suggest that the problem might be minimized or even corrected completely by incorporating a drier unit and carbon filter between the compressor and the diluter units. Alternatively, a dry air supply of appropriate pressures from a central source could be employed should this facility exist. Coulter Electronics Ltd suggested that the fault could be corrected by spraying the shuttle valves with a release/lubricating oil. I was not surprised

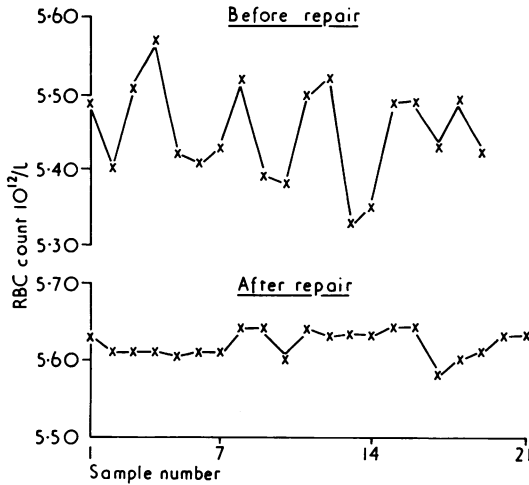


Figure Successive estimates of RBC count ($10^{12}/l$) were made on a single specimen when the shuttle valves were sticking and after they had been replaced. Note the change in mean value as well as in precision.

to find that this treatment was initially beneficial but ultimately failed.

Book reviews

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Gram-negative Bacterial Infections and Mode of Endotoxin Actions, edited by B. Urbaschek, R. Urbaschek, and E. Neter. (Pp. vxi + 524; illustrated; \$31.00 approx.) Vienna and New York: Springer-Verlag. 1975.

This book contains 62 papers which were given at an Immuno-Symposium in Vienna in 1973. The editors apologize for the delay in publication, but it still reads as an up-to-date account of research in various aspects of infections by Gram-negative bacteria. The symposium appears to have been more successful than many such in obtaining papers of a high quality on most important topics and in engendering useful discussion among the contributors, which is included in this volume.

The heart of the book is a very full consideration of fundamental problems of pathogenesis in Gram-negative infections and in particular of the action of endotoxin. There are sections concerned with immunology, non-specific resistance and endotoxin tolerance, pathophysiology, haemodynamics and metabolism, pharmacology and blood coagulation. Inevitably, the sections dealing with clinical aspects, microbiology, epidemiology and more general immunology, which frame these, are less exhaustive, though here some subjects selected are of great interest; burn disease, for example,

has a section to itself with several useful papers.

When it is such a valuable review it is a pity that this book is so difficult to read. Partly this is due to the compression of material into short compass, and the rather stiff translation into English of some of the contributions. The main problem, however, is that the lines of print, though clear, are so spaced as to make visual concentration difficult. Exaggerated spacing of letters for emphasis—rather than italics or underlining—is another small affront to the eyes. It is nonetheless well worth persevering for the information assembled here.

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Radiologic and Other Biophysical Methods in Tumor Diagnosis. (Pp. 486; illustrated; £17.90.) Chicago: Year Book Medical Publishers. 1975. (Distributed in UK by Lloyd-Luke (Medical Books) Ltd).

This is a collection of papers presented to the 18th Annual Clinical Conference on Cancer at the M.D. Anderson in 1973. As the title suggests, the papers concern a variety of different techniques used for the detection of tumours, including radioisotope scanning, diagnostic ultrasound, thermography, xeroradiography, and plain and contrast radiography. Some of