50 to 59, a somewhat higher figure than is commonly quoted. In this series it is of interest that no female patients with thoracic aneurysm were found under the age of 30.

Summary

Two cases of acquired syphilitic aneurysm in adults under the age of 30 are reported. It is probable that the disease was also acquired in the third case. Although congenital syphilitic mesaortitis does occur the incidence of aneurysmal dilatation is very rare. It is known that symptoms of thoracic aneurysm may appear within ten years of the primary syphilitic infection, but in the majority the period is fifteen to twenty years. As regards age incidence of aneurysm of the thoracic aorta, the maximum was found in the sixth decade.

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REFERENCES

- Boyd, L. J. (1924). *Amer. J. med. Sci.*, **168**, 654.
 Brockbank, E. M. (1925). *British Medical Journal*, **2**, 606.
 Cochems, K. D., and Kemp, J. E. (1937). *Amer. J. Syph.*, **21**, 282.
 Coombs, C. F. (1932). *Quart. J. Med.*, n.s., **1**, 179.
 Crisp, E. (1847). *Structure, Diseases, and Injuries of the Blood Vessels*, London.
 Givan, T. B. (1930). *Amer. Heart J.*, **6**, 132.
 Heiman, H. (1919). *Arch. Pediat.*, **36**, 543.
 Kampmeier, R. H. (1935). *Colorado Med.*, **32**, 104.
 — (1938-9). *Ann. intern. Med.*, **12**, 624.
 Le Bouillier, T. (1903). *Amer. J. med. Sci.*, **125**, 778.
 Lucke, B., and Rea, M. H. (1923). *J. Amer. med. Ass.*, **81**, 1167.
 McCulloch, H. (1930). *Amer. Heart J.*, **6**, 136.
 McDonald, S. (1932). *Brit. J. vener. Dis.*, **8**, 253.
 Maynard, E. P., and others (1935). *Arch. intern. Med.*, **55**, 873.
 Previtali, G., Nicholson, G. H. B., Moon-Adams, D. (1930). *Amer. Heart J.*, **6**, 128.
 Richey, W. G. (1923). *Arch. intern. Med.*, **31**, 232.
 Sandford, S. P. (1931). *Ann. intern. Med.*, **4**, 1417.
 Stolkind, E. J. (1920). *Brit. J. Child. Dis.*, **17**, 126.
 Turnbull, H. M. (1911). *Trans. med. Soc. Lond.*, **34**, 240.
 Willson, R. N. (1914). *Proc. path. Soc. Phila.*, **16**, 63.

NOTE ON THE TESTING OF TRANSFUSION FLUIDS FOR CONTAMINATION

BY

W. R. LOGAN, M.D., F.R.C.P.Ed.

Bacteriologist to the Royal Infirmary, Edinburgh

It is ideal that all bottles of plasma and of citrated blood used for transfusion should have been tested for sterility, but it is also ideal that no bottles should be opened before use. These ideals are in conflict. If each bottle is to be tested it is necessary that the ritual is such as to eliminate any possibility of contamination of the material in the course of the bacteriological examination.

Technique

The technique used in this laboratory for the testing of transfusion material sent for this purpose from the Edinburgh Blood Bank is as follows.

All currents of air in the room are avoided. There is no speaking while the bottles are opened. No bottles are opened if anyone has recently sneezed or coughed near the bench. When a crate of, say, six bottles of plasma or blood is received, six tubes of ordinary or trypsin broth for aerobes and six tubes of Robertson's meat medium sealed with paraffin for anaerobes are set out in a rack and labelled. The cotton-wool plug in each tube is freed by turning, to ensure that it can later be removed with one hand. The bottle is placed near to the rack and the rubber bung or screw cap removed with one hand while a Bunsen flame is played with the other on the upper

rim of the bottle and air immediately above, into the upper inch or so of the aperture, and inside the screw cap or around the part of the bung which is to be inserted. The bung or cap is then replaced, but without ramming home or screwing down. A sterile Pasteur pipette is removed from the copper box in which it has been sterilized, a rubber teat affixed, and the part of the pipette which is to be introduced sterilized once more by passing through the Bunsen flame. The bung or cap is now momentarily removed and about 1 c.cm. of plasma or blood drawn into the pipette, the stopper being lightly replaced. Each culture tube in turn is then lifted between the thumb and ring and little fingers of the left hand, the cotton-wool plug is withdrawn between the index and middle fingers, the medium inoculated with half the pipetteful of fluid, and the plug replaced. In inoculating the anaerobic medium it is important that the pipette be withdrawn before all the fluid has been expelled, to avoid the introduction of air into the medium. The pipette is then discarded into a vessel containing antiseptic, and, with both hands now free, the bung or cap is again lifted and the ritual of flaming the lip and mouth of the bottle and the stopper carried through once more. Bung or cap is now screwed firmly home. All this takes only a few seconds.

The inoculation tubes are incubated at 37° C. for two days. If they remain perfectly clear the result is reported as negative. If there is any trace of turbidity, films and subcultures are made. Sometimes there is a slight change in the Robertson's medium which entails further examination when actually no organisms are present. It will be observed that while most varieties of organisms are catered for by the media used, which are enriched by the plasma or red cells introduced, there is no provision for the growth of haemophilic organisms when the material under examination is plasma. But as such organisms could not multiply in the original bottle of plasma even if accidentally introduced, it has not been thought necessary to use a blood medium.

Precautionary Measures

Strict injunctions are given that no one is to open a bottle except the person carrying out the examination. There is a very real danger here, as blood and plasma are both used in bacteriological laboratories for the preparation of media, and the latter for the coagulase test on staphylococci. If the Blood Bank gives an occasional present of blood to the examining laboratory it makes for additional safety in this respect. Where bottles have to be sent some distance to an outside laboratory it is advisable to seal them before sending, and before returning, in such a way as to make it obvious if they have been tampered with. Instructions are given to the messenger to shake bottles of blood as little as possible during transport.

Before being sent from the Blood Bank for testing, the bottles should be removed from the refrigerator and kept at room temperature for several days so as to give contaminations an opportunity of multiplying.

The technique above described has given satisfactory results, and can be carried through by one person. In no case, so far as can be ascertained, has it been the cause of contamination of a bottle, or failed to detect one when present.

The following notice appeared in the *New England Journal of Medicine* for February 27: "It will help England greatly in the care of victims of bombing raids and help England prepare for the coming invasion if physicians in this country all give discarded or superfluous surgical instruments or surgical dressings. Any such material should be sent to the Medical and Surgical Supply Committee, 420, Lexington Avenue, New York City."