

the infections associated with catgut have been observed regularly to subside and to heal spontaneously after three weeks, presumably because of the gradual absorption of the foreign body. A great deal more evidence will be needed before the use of catgut sutures can be recommended for cardiovascular surgery, however, particularly in view of the great emphasis on the use of silk that has emanated from this institution.

SUMMARY

Five cases of staphylococcal stitch abscess of the myocardium or great vessels following surgical procedures have been presented. The clinical characteristics of this complication were discussed. The infections were strikingly resistant to massive antibiotic treatment, but complete eradication of infection followed removal of the sutures. The pathogenesis of this type of infection is discussed in relation to sutures as foreign bodies, and preliminary results of experimental studies in dogs using contaminated suture materials of several types were summarized.

REFERENCES

1. Blades, B.: Subphrenic Abscess. *Surg., Gynec. & Obst.*, **103**: 765, 1956.
2. Denton, C., E. G. Pappas, J. F. Uricchio, H. Goldberg and W. Likoff: Bacterial Endocarditis Following Cardiac Surgery. *Circulation*, **15**: 525, 1957.
3. Eagle, H., R. Fleischman and A. D. Musselman: The Bactericidal Action of Penicillin in Vivo: The Participation of the Host and the Slow Recovery of the Surviving Organisms. *Ann. Internal Med.*, **33**: 544, 1950.
4. Ekstrom, G.: The Surgical Treatment of Patent Ductus Arteriosus. *Acta Chirur. Scandinav.*, Supplement 169, 1952.
5. Elek, S. D.: Experimental Staphylococcal Infections in the Skin of Man. *Ann. New York Academy of Sciences*, **65**: 85, 1956.
6. Fleming, H. A. and M. E. Seal: Staphylococcal Infection Following Cardiac Surgery. *Thorax*, **10**: 327, 1955.
7. Howe, C. W.: Prevention and Control of Post-operative Wound Infections Owing to Staphylococcus Aureus. *New Eng. J. Med.*, **255**: 787, 1956.
8. Jones, J. C.: Complications of the Surgery of Patent Ductus Arteriosus. *J. Thoracic Surg.*, **16**: 305, 1947.
9. Scott, H. W.: Surgical Treatment of Patent Ductus Arteriosus in Childhood. *Surg. Clinics N. America*, **32**: 1299, 1952.
10. Smith, M. R. and W. B. Wood, Jr.: An Experimental Analysis of the Curative Action of Penicillin in Acute Bacterial Infections. III. The Effect of Suppuration upon the Antibacterial Action of the Drug. *J. Experimental Med.*, **103**: 509, 1956.
11. Touroff, A. S. W.: Discussion on "Complications of the Surgery of Patent Ductus Arteriosus" by Dr. John C. Jones and "Complete Division for the Patent Ductus Arteriosus" by Dr. Robert E. Gross. *J. Thoracic Surg.*, **16**: 324, 1947.

DISCUSSION

DR. GERBODE: I couldn't let this moment go by without congratulating Dr. Bahnsen on this very excellent paper, and calling attention to this real threat in cardiovascular surgery.

We have had one instance of severe infection following the ligation of a patent ductus arteriosus. Dr. Holman and I operated upon this patient for 7 hours to remove a tiny silk stitch embedded in an aneurysm associated with a recanalized patent ductus. I think this tiny stitch embedded in 4 mm. of granulation tissue had caused a total of about \$7,000 worth of hospital care. The day following

operation cultures of the blood were sterile, and they remained sterile thereafter. [Applause]

DR. BAHNSON: I can't refrain from expressing my gratitude to Dr. Gerbode for confirming what we suspected from the literature, namely, that such infections are not confined to our hospital.

I was asked over my shoulder what we used to repair the defect in the cases of the aneurysm in the ductuses. At the second operation, the aneurysm was repaired with 6.0 stainless steel wire. In the 2 cases of patent ductus, we closed the aorta in one with stainless steel wire and in the others, closure was with 5.0 arterial silk. [Applause]