

I find a series of eight cases all under 20 years of age. These had come to the orthopaedic clinic for treatment of scoliosis, and showed no symptoms of any other effects. They were simply diagnosed in the routine examination, and also by means of the X-rays; a definite cervico-dorsal scoliosis being present.

OSKAR KLOTZ, M.D.—With regard to the pathological findings in the arteries, there are some very interesting points to be noted. It was found that in the right arm the sub-clavian artery was flattened out as it passed out from the thorax, and at this point it was thrombosed. Then the vessel again regained its normal and almost normal lumen as it passed into the arm, only to become occluded again at the wrist and in the hand.

There has been an abnormal course of the subclavian artery, which has acted upon the artery in such a way, either by compressing it or exposing it to friction in the movements of the arm, that a thrombosis was brought about. There a secondary thrombosis occurred in the vessels of the wrist and hand. That these arterial blockages are thromboses and not endarteritis is seen in the fact that blood pigment can be found in the new tissue within the vessel, as deep down as the original vessel wall. These thromboses are well organized and also show canalization, a process which is not seen in endarteritis obliterans. The blockage in the arteries of the right side was of greater extent than on the left, as in the latter the collaterals were not affected.

C. K. RUSSEL, M.D.—I have been able to find no cases in the literature of cervical ribs causing symptoms in children. The youngest case was aged 13, the next 17 and the others over 20. In his review of the literature Tillman reported 26 cases in which cervical ribs had been discovered, 13 were only by accident, the other 13 having some symptoms of the condition. In 10 the symptoms disappeared by treatment; in three cases in which there was pressure on the subclavian artery and came to operation, there was recovery. With regard to why symptoms did not develop in the left hand in the patient seen by Dr. Gordon, I may say that the left hand had not been in use so constantly as the right, and that lately he has supplemented his writing a great deal by the use of the typewriter. One cannot of course exclude the possibility of the mental condition having something to do with this case but I think the rib was probably the indirect cause. The condition is evidently there before the age of 20, and I merely suggested the question of late ossification and the greater muscular development of the right side as a possible cause to explain symptoms which come on at that time. In the vertebral artery the turns which it has to take are normal; in this condition