

derness of certain spots, alternating with painless intervals, excretion of the Bence-Jones body in the urine. The suspicion that multiple myelomata always gave rise to this complex has not been verified.

In contrast to these rare forms we now mention the frequent picture of *osteomalacia*, which is well known from time immemorial: Onset during pregnancy or puerperium, exacerbation during succeeding pregnancies, changes in the bony pelvis, paresis of the ilio-psoas, adductor contracture, therapeutic influence of phosphorus.

CHAPTER XXXIX

SCOLIOSIS

In the domain of lateral deviation of the spinal column the physicians of our time are still guilty of many sins. On the one hand, beginning scoliosis often escapes unrecognised; on the other, slight lateral deviations are not taken seriously, and are passed over with the remark that they will disappear without treatment. The physicians should learn from the mothers—this includes both the recognition and the due appreciation of the gravity of the trouble. Scoliosis in a young girl is of the greatest significance, for it may endanger her life later on.

In dealing with a beginning scoliosis have the child stripped naked and place it upon a table or chair, in order to carefully observe it from the back. The child must stand in military posture, with its arms hanging down naturally and with the knee-joints fully extended. First of all, determine whether the legs are of equal length or not (the position of the gluteal folds will show this), for not infrequently scoliosis is purely of *static* origin. In these cases the deformity disappears as soon as the shortening is corrected by placing a book or piece of board beneath the foot of the shorter side. If the legs are of equal length, the relation of the arms to the trunk should be compared on both sides. If one

arm is separated by a wider interval from the trunk, most probably the dorsal segment is more convex toward the opposite side. If the triangle at the waist (*Taillendreieck*)—i. e., the interval between the arm applied to the body and the lateral contour of the trunk—is not quite symmetrical, the lumbar spine is scoliotic. A considerable deviation may exist, and yet both of these signs be wanting. The disease is then recognised by the symptoms observed on the trunk. Test the position of the shoulder-blades. The mothers themselves point out this sign to the physician. If the one scapula is nearer to the spine than the other, asymmetry points to scoliotic deformity. Following up the spinous processes, we observe a slight deviation in the dorsal or lumbar segments. The contour of the thorax must also be examined. In the dorsal segment, when the case has progressed further, the posterior portion of the ribs shows an inequality in their curvature. A decided hump is formed by the ribs on the convex side of the curve. In the lumbar segment this difference manifests itself in the inequality of the sacro-lumbalis group, which forms a more decided prominence on one side than on the other. In order to recognise minor grades of rib deformity it is advisable to have the patient elevate the arms, or, still better, to have the arms placed in front of the body as if in the act of swimming. With the child in this position, it is a good plan to stand in front of it, and then ask the child to bend its head downward and forward. By this manœuvre we see the trunk from neck to pelvis in its reversed position, and are better able to recognise the slightest asymmetry between the right and left side. Also observe the junction of trunk and pelvis; if asym-

metry is found, a scoliosis is probably present. This symptom has always been known as "*high hip*." Finally, one must decide whether the physiological curvature of the dorsal segment is diminished. If this change has taken place, especially if the spine between the shoulder-blades is straight or concave instead of convex, an advanced degree of scoliosis is to be feared. If all these tests are made and nothing is observed, although there is a beginning scoliosis, the observer himself is a "*hopeless case*." If, on the other hand, he observes some deformity, it is his duty to recommend orthopædic treatment. *Initia morborum curantur!*

The scoliosis of infancy—not including static deformities—are due to rachitis. Scoliosis which appears in the school-girl is usually the result of habit, although late manifestations of rachitis may be at work. The dorsal segment is then convex toward the left, and the greatest deviation is found about the middle of the spinal column. The bend is quite abrupt and the spine very rigid. If other signs of rickets are present they strengthen the diagnosis.