

of the laminar part of the neural arch independently of the pedicular part occurs, for observations on a sufficiently large number of specimens have not yet been systematically conducted. But this may without doubt be affirmed, that in a series of spinal columns from white races equal in number to those analysed in this chapter, and like them taken without selection, there would not have been found so large a proportion in which the 6th cervical spine was not bifid and nearly equal in length to the spine of the 7th cervical; or three skeletons with a supernumerary dorsal vertebra; or seven specimens of irregularity in the development of the neural arch of the 5th lumbar vertebra.

The Lumbar Curve of the Spinal Column.

In the course of the investigations into the characters of the skeletons described in this Report, I have measured the bodies of the lumbar vertebræ with the view of ascertaining if modifications existed in their vertical diameter, anteriorly and posteriorly, which might affect the lumbar curve of the spine.

Anatomists are in the habit of teaching that the human spine is convex forward in the lumbar region, so that a lumbar convexity is interposed between the thoracic and sacral concavities, and contributes to the alternating series of concavo-convex curves of the spinal column, which are associated with the erect attitude of man. My belief in the universality of the view that the lumbar vertebræ themselves invariably produce a forward convexity in that region was disturbed some years ago, when Charles Robertson, Esq., of the Oxford Museum, showed me the skeleton of an aboriginal Australian in that museum, which he had articulated in 1873. Mr. Robertson told me that the skeleton was that of an adult male of the Tomki tribe of the Richmond River, N.S.W. In it there was a continuous curve, concave forwards through both thoracic and lumbar regions. As the skeleton was, however, artificially articulated, the question naturally arose in one's mind if this modification in the lumbar curve might not have been produced by some peculiarity in the method of articulation, and was not therefore natural to the spine. Since I saw this skeleton, however, Mr. Robertson has written to tell me of another adult male from Port Augusta, South Australia, articulated in 1878 with great care and with especial attention to the lumbar curve, which exhibited a similar concavity in the lumbar region, and that the articulated skeletons of a Gilbert Islander and a male Andaman Islander have a similar lumbar concavity, though not so well marked. Before I had heard, however, of these later specimens in the Oxford Museum, I had examined the lumbar vertebræ in the series of spines at my disposal in Edinburgh, and had obtained some interesting results.

Two important factors contribute to the curve in the lumbar region, viz., the vertebral bodies and the intervertebral discs. The exact share contributed by each of these parts can only be ascertained with precision by applying to the vertebral column in the different races of men the method of observation which Professor D. J. Cunningham