

of Trinity College, Dublin, has employed in the study of the spine in the Irish race, viz., the making of longitudinal mesial sections through the long axis of the spine in frozen bodies, and then carefully measuring the relative thickness both of the vertebral bodies and the discs. In the absence, however, of the fresh bodies of Australians and other Aborigines, I have been precluded from obtaining any information on the thickness of the discs, and have been restricted to the examination of the vertebræ themselves, so far as they have been preserved in the skeletons which have reached me. I have measured, therefore, the vertical diameter of the body of each lumbar vertebra, both in front and behind, and have noted the difference in each vertebra, and in the series of lumbar vertebræ in each spine.<sup>1</sup>

In order to obtain some data for comparison, I measured the lumbar vertebræ in twelve adult European spinal columns, the great majority of which were males, and found that the vertical diameter of the anterior surface of the bodies of the five vertebræ in each spine was collectively greater than the vertical diameter of the posterior surfaces in the same spine. The maximum difference between the collective depth of these surfaces in the series of five vertebræ was 11 mm. in one skeleton, and the minimum difference was 1 mm. in another skeleton. The mean collective depth of the five vertebral bodies in the twelve European skeletons was 137 mm. for the anterior, and 131·4 for the posterior surface, the mean difference therefore was 5·6 mm. in favour of the anterior surface. If we were to assume that in these spines each intervertebral disc had been of equal thickness throughout, then the greater thickness of the vertical diameter of the bodies in front than behind in each spine would have given a slight convexity forwards to the spinal column in the lumbar region. But we know that these differences in the vertical diameter in the lumbar region of Europeans are not limited to the vertebral bodies, and that some of the discs also are thicker anteriorly than posteriorly, so that the anterior convexity would therefore by their interposition be increased.

In the individual lumbar vertebræ in each of these European spinal columns, with only two exceptions, the body of the 1st lumbar vertebra was deeper behind than in front, in one instance 6 mm., in another 4 mm., but usually not more than 1 or 2 mm.; in the exceptional cases the anterior and posterior vertical diameters were equal. The body of the 2nd lumbar was deeper behind than in front in six spines; they were equal in depth in four spines, and the anterior surface was deeper than the posterior in two spines. The body of the 3rd lumbar was deeper in front than behind in ten spines, and in two they were equal. The body of the 4th lumbar was deeper in front than behind in eleven spines, and deeper behind than in front in one specimen. The body of the 5th lumbar was deeper in front than behind in all the specimens. From these spinal columns it is

<sup>1</sup> When my paper on the lumbar curve was published in the *Journal of Anatomy and Physiology*, April, 1886, vol. xx., I was not aware that Dr. Cunningham had given an abstract of his researches in *Nature*, 18th February of the same year. He has since kindly directed my attention to this abstract, and I have now incorporated in this Report many of the facts contained in it.