

I do not propose in this paper to discuss all the various views that have been held in regard to the homology of the musculus sternalis, as this has already been ably done by Professor Turner<sup>1</sup> and others; but I might mention that Professor Bardeleben<sup>2</sup> has advanced the theory that some of these muscles belong to the sterno-mastoid, and are supplied by the intercostal nerves, whilst others should be classed with the pectoral group, because they receive their nerve-supply from the anterior thoracic. Malbrane's<sup>2</sup> observations agree with Bardeleben's, for in two living subjects he found the musculus sternalis standing out quite perceptibly under the skin.

In the first case faradisation of the intercostal nerves brought the muscle into action, but in the second it failed; but when faradisation of the thoracic nerves was employed, the muscle responded immediately.<sup>3</sup>

M. Testut<sup>4</sup> holds that the musculus sternalis (pre-sternal) is in its upper part an appanage of the sterno-mastoid, and in its lower belongs to the external abdominal oblique. He says these muscles (sterno-mastoid and external abdominal oblique) are in the same muscular plane, and that the musculus sternalis is the remnant in man of the old connection which formerly existed between the two—a connection which exists in serpents.

As I said above, I feel disposed to consider the musculus sternalis as belonging to the pectoral group, and await further light to determine its proper morphological significance. In some of my cases it appeared to take the place of the absent portion of the greater pectoral, and where the muscle was well developed would act as an elevator of the ribs.

As to its occurrence in anencephalous monsters, I am unable to afford any explanation. As far as I can judge from the six specimens I have examined, it appears to be the normal condition. There seems to be great variety of origin, insertion, size, and shape of these muscles, no two being exactly alike. The fact that this muscle occurs so commonly in the brainless monsters would point rather to its being a rudiment than a new

<sup>1</sup> *Jour. of Anat. and Phys.*, vol. i. p. 246.

<sup>2</sup> Quoted by Testut in *Les Anomalies Musculaires chez l'homme*, 1884.

<sup>3</sup> In Case III. in my series the muscle was supplied by both intercostal and anterior thoracic nerves.

<sup>4</sup> *Les Anomalies Musculaires chez l'homme*, p. 84.