

ficial to the great pectoral. It was often bilateral but most frequently unilateral, and was subject to many variations. Frequently it had no attachment to bone, but lay superficial to the great pectoral, and was attached at either end to fascia. It often was inserted into the costal cartilages.

It might be continuous above with the sternal origin of the sterno-mastoid, and below with the fascia of the external abdominal oblique. Again, it might be continuous with the pectoralis major, and be associated with deficiency of that muscle.

It was often of small size, but occasionally it was quite a strong muscle, and could be seen under the skin in the living. Dr. Sheppard had seen it measuring five inches long, two and a half inches broad, and two and a half inches thick. For years it was considered to be a remnant of the rectus abdominis, which in many animals extends from the pubis to the top of the sternum, and was called the *sternalis brutorum*. This view had long ago been given up because the rectus abdominis lies in a plane deeper than the great pectoral, and is never superficial to it. Bourienne many years ago held that it was a prolongation downwards of the sterno-mastoid, a view still held by Henle and others. Hallette and Wilde regarded it as belonging to the same group of muscles as the platysma, and Prof. Turner, of Edinburgh, considered it to be one of the representatives in man of the great panniculus group which exists in most mammals. Darwin also held this view in his work on the *Descent of Man*, after referring to the views of Prof. Halbertsma, M. Testut and Prof. Bardeleben.

Dr. Sheppard stated that Prof. Cunningham, of Dublin, has lately in five cases traced the nerve supply of the musculus sternalis to the anterior thoracic nerve, and that he, believing that the nerve supply was the best indication for the proper classification of muscles, considered that the musculus sternalis belonged to the pectoral group. Prof. Cunningham also suggested that this was a new inspiratory muscle appearing in man, and that it was his impression that it occurred more frequently in females, due possibly to costal inspiration being more pronounced in them. Mr. Abraham, of Dublin, first pointed out, last year, that this muscle was very common in anencephalous monsters, as he had found it in six out of eleven specimens examined. Mr. Abraham looked upon it as probably an aberrant portion of the great pectoral muscle.

Dr. Sheppard said that he had examined six anencephalous monsters which were in the museum of the Medical School of McGill University, and wished to place the results of his dissection before the Society. In each monster he had found a well-developed musculus sternalis. In three the muscle was double; in two continuous above with sterno-mastoid, and in several it arose from the manubrium sterni, and was inserted into the costal cartilages. In all the cases there was a deficiency of the great pectoral muscle on the side where the supernumerary muscle was found, the abnormal muscle apparently taking the place of the absent portion of the pectoral. In several the muscle was of large size, and in part continuous with the fibres of the great pectoral. Nine muscles, in all, were found in six monsters, as three had double muscles. Dr. Sheppard had successfully traced the nerve supply of these muscles in all but two—that is, seven of the muscles were supplied by the anterior thoracic nerve; the nerve entered the muscle in its deep surface and could be traced back over the lesser pectoral through the costo-coracoid membrane to the internal anterior thoracic nerve.

Dr. Sheppard remarked that it was a curious fact this muscle should be supplied by a nerve which is at so great a distance from it, and not by the intercostal nerve, which in several cases pierced the abnormal muscle without giving any branches to it. He also stated that he had formerly held that the *musculus sternalis* belonged to the panniculus group, but that these dissections had caused him to alter entirely his previous views as to its homology, and that now he had little doubt that this muscle belonged to the pectoral group because: 1. Its nerve supply. 2. When present the great pectoral is generally deficient. 3. Its continuity in many cases with the great pectoral. 4. That it was in the same muscular plane as the great pectoral. Dr. Sheppard said that it was his belief that the nerve supply was the best guide we possessed for determining the homology of a muscle.

Dr. Sheppard was unable to explain why this muscle should be so common in anencephalous monsters, except that in these undeveloped beings there was a greater tendency to revert to previous conditions; but he said it was difficult to reconcile the fact that this muscle was an aberrant portion of the great pectoral and a reversion to some pre-existing muscle, as no known existing arrangement