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Periarthritis humeroscapularis

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Document Version

Publisher's PDF, also known as Version of record

Publication date:

1950

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Galema, P. C. (1950). *Periarthritis humeroscapularis*. Niemeyer.

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S U M M A R Y

A short historical survey of peri-arthritis of the shoulder is followed by a lengthy discussion of the structure of the shoulder joint and the periarticular tissues. It is particularly these tissues which deserve special attention. Not only is great stress laid on their importance, but also the incorrect description of the subacromial bursa in most anatomical atlases is pointed out.

This bursa, together with the supraspinatus tendon and the tendon of the long head of the biceps play an important part as periarticular tissues in bringing about peri-arthritis of the shoulder.

In view of the incongruity existing between the simple structure of the shoulder joint and the perfect functioning of the shoulder, it is no wonder *that heavy demands are made on the connecting link between them, the periarticular tissues*, especially on the supraspinatus tendon. Owing to the great demands made on this tendon by the normal movements of the shoulder through the microtraumata constantly acting upon it during abduction, and also owing to its deficient blood supply, especially after middle age, it is obvious that even under physiological circumstances pathological changes are apt to occur in the tendon, in the form of either degeneration, calcification or rupture. It is these changes that form the basis of the syndrome of peri-arthritis of the shoulder.

The pathological anatomy of the so-called normal tendons was studied, both macroscopically and microscopically, with the aid of existing literature and private section materials.

It was found that the seemingly normal tendons sometimes contain cartilage cells in degenerated areas.

Further transition forms were found from the fibroblast to the chondroblast.

It is contended that pressure exerted on the tendon may result in the formation of cartilage in it.

The investigations showed that in cases of peri-arthritis of the shoulder the affections of the tendon agree with the numerous

changes occurring in the normal supraspinatus tendon. There is only a quantitative difference. In the case of periarthritis there are chiefly reactive phenomena, which are absent in the normal tendon. They find their origin in the base of the subacromial bursa, which is closely connected with the above tendon. If this base reacts, there will arise clinical phenomena attended with swelling and adhesion formation. If there is no reaction owing to the primary processes occurring in the centre of the tendon and not extending to the base of the subacromial bursa, these processes are symptomless. Through some micro-trauma or other after a normal movement of the shoulder, or sometimes through a macrotrauma, these latent processes may produce clinical effects.

These effects depend to a great extent on the primary localization and on the nature of the pathological changes. According to the primary localization periarthritis of the shoulder is divided into a "supraspinatus" syndrome and a "biceps" syndrome. The first is called thus because usually the tendon of the supraspinatus is involved. The tendons of the other short rotators have, however, also to be included under this heading (infraspinatus muscle, teres minor muscle and subscapularis muscle).

According to the nature of the pathological processes the "supraspinatus" syndrome is subdivided into rupture, calcification, and degeneration (tendinitis), while the "biceps" syndrome may be either complete rupture or dislocation.

Each of these affections forms a separate clinical unit and has been treated as such.

The best treatment to be used differs for each of the above forms. Mostly it will be conservative, but sometimes very radical, while in other cases again it will be conservative at first and radical later on, if the conservative mode of treatment has proved an utter failure.

The following points are important with regard to social legislation:

The complete rupture and the great incomplete rupture of the supraspinatus tendon only arise after a macrotrauma and with previously existing degeneration.

With the other forms of the "supraspinatus" syndrome the trauma may be left out of account in the anamnesis.

The complete rupture of the long head of the biceps muscle may occur after macrotrauma, without previous degeneration.