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From the Department of Surgery (Head: B. Chr. Brynjulfsen), Fylkessjukehuset (The County Hospital), Odda, Norway.

TENDINITIS CALCAREA SUPRASPINATI

41 Operated Cases

By

OTTAR HEGGÖ

Opinions are divided in respect to the treatment of tendinitis calcarea supraspinati. In acute cases surgery has its adherents. More reserve seems to be displayed in the case of chronic manifestations (*Bosworth* 1941, *Moseley* 1947, *Malm* 1955). However, *Bruusgaard* (1952) has reported good results of surgery.

The patients of the present series were treated by a simple surgical procedure. The results were analysed, and particular interest was devoted to patients with a relatively long duration of symptoms.

MATERIAL AND METHOD OF OPERATION

The series comprised 38 patients operated upon during the period 1951–1958 (Table 1). Three were treated on an out-patient basis. Three had operations on both shoulders. Thus, a total of 41 surgical procedures were carried out.

The follow-up study, performed in March-May 1959, included 37 patients, as one patient did not attend and also did not answer a questionnaire. All but 3 patients had a follow-up period exceeding 6 months.

Before the operation all the affected shoulders were studied by radiography. The films showed in all cases but one an appearance which may be called a characteristic shadow. At follow-up, films were not taken as a routine, only a few random samples. There was no case of a shadow like that mentioned above.

Eight males and seventeen females underwent operation for a right-sided lesion, 4 and 6 respectively for a lesion on the left side. Two males and one female had operations for right- as well as left-sided lesions.

Two patients had the operations under general anaesthesia, the others under local infiltration anaesthesia.

TABLE 1

Occupation and Sex Ratio of 38 Patients Operated upon for Tendinitis Calcarea Supraspinati (3 had Bilateral Operation).

Occupation	Males	Females	Total
Domestic work	...	20	20
Manual work	9	...	9
Office work	5	4	9
Total	14	24	38

TABLE 2

Type of Tendinitis Calcarea Supraspinati in 38 Operated Cases (3 Patients had Bilateral Operation).

Type	Males	Females	Total
Acute (I)	8	5	13
Chronic (II)	4	10	14
Chronic with exacerbation (III)	4	10	14
Total	16	25	41

The patient lies supine, and the best possible approach is obtained by supporting the affected shoulder on a cushion. A longitudinal skin incision is made above the greater tuberosity from the acromion and 4–5 cm. into the distal direction. The deltoid muscle is split in the direction of the fibres. Care must be taken not to injure the axillary nerve. The sub-deltoid bursa is opened. At the site of the prominence of the bursa floor, which represents the focus, an incision is done, including the underlying tendon sheath. Any material which is not evacuated spontaneously after this incision is emptied out by a spoon. The wound is closed by a couple of interrupted catgut sutures into the muscular fascia and sutures into the skin.

On the following day the patients are started on active exercises. The majority of the present patients had a normal range of movement in the affected limb 4–8 days after the operation. A few patients who had a particularly long history and whose ability to move the arm seemed greatly reduced were helped by passive stretching.

The majority of the Type I patients (Table 2) went back to work 8–10 days after the operation. A few of the groups domestic and office work started working in 4–8 days, two even earlier. The great majority

of Type II and Type III patients were working again at the end of 8–14 days, while one patient was off work for 4 weeks, allegedly because he had pain in the skin wound.

Apart from a short-lasting inflammatory condition of the skin wound in one patient, no complications occurred.

RESULTS

The results of the follow-up study are stated in Table 3. The group of *excellent* results consists of patients who had no pain in the previously affected shoulder. A *good* result signifies that the patients had less marked, not annoying pain in the affected shoulder. A *poor* result was recorded in one case, a patient whose symptoms were unchanged. In the excellent group 3 patients of Type II had more or less marked abnormal muscle tension in the shoulder and neck. Two of these patients showed a limitation of abduction in the previously affected limb. The same applied to one patient of Type III who also had a palpable muscular atrophy in the shoulder and upper arm on the affected side.

During the period between the operation and the follow-up, 4 patients had developed symptoms of supraspinatus tendinitis on the contralateral side.

TABLE 3

Follow-up Findings in 38 Patients Operated upon for Tendinitis Calcarea Supraspinati (3 had bilateral Operation).

	Result			Not examined	Total
	Excellent	Good	Poor		
Acute (I)	13	...	...	...	13
Chronic (II)	12	...	1	1	14
Chronic with exacerbation (III)	12	2	...	...	14
Total	37	2	1	1	41

DISCUSSION

The described operative procedure is very simple, only very slightly mutilating, and causes the patient little pain. It can be carried out under local anaesthesia.

In acute cases this treatment results in prompt relief from pain. The convalescence is short. In the present series there were no signs of recurrences, which is in keeping with the findings of others (*Moseley*).

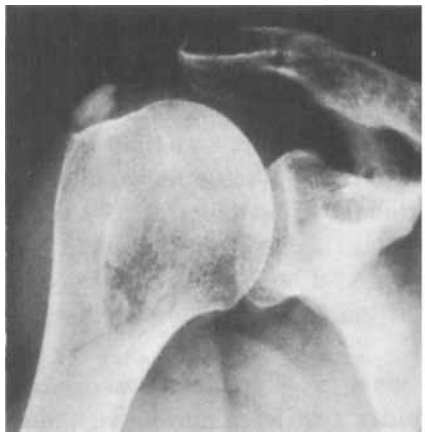

Fig. 1.

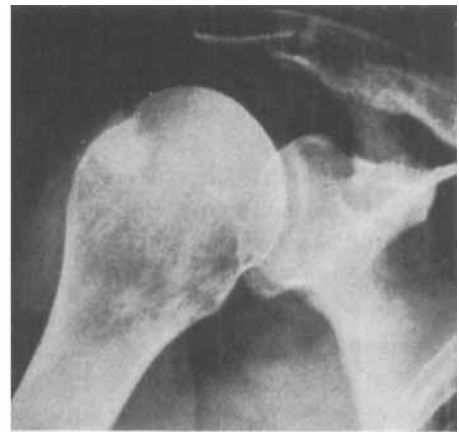

Fig. 2.

Calcification of the supraspinatus tendon.

Furthermore, the investigation shows that the treatment is quite effective also in the *chronic* types; there were also no signs of recurrences among patients with a relatively long duration of disease However, one patient was not after-examined.

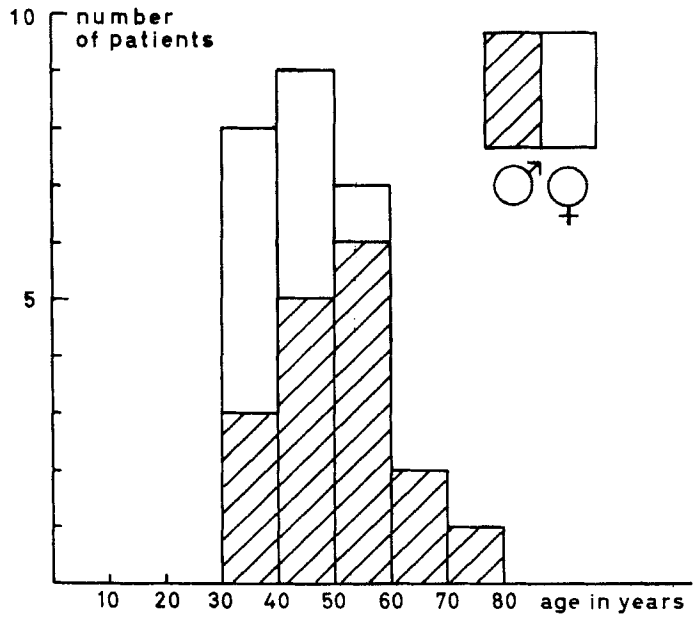

Fig. 3.

The present surgical treatment compares favourably with conservative therapy (*Arner, Lindvall & Rieger* 1958, mainly roentgen therapy; *Conventry* 1954, cortisone-hydrocortisone therapy). This is evident also from the fact that more than half the patients with a long duration of symptoms had previously received roentgen therapy, a number of them even several series in the course of some years. Furthermore, many of these patients had previously had other treatment, as a rule varies forms of physiotherapy. Five patients with acute symptoms had previously been referred for roentgen therapy, 2 had been treated by aspiration, or attempts at aspiration, of calcific material by the percutaneous route.

Only relatively few patients had what may be called secondary changes in the previously affected shoulder, restricted movements, muscular atrophy, or abnormal muscular tension. Systematic training of function after the operation is presumably an important factor.

SUMMARY AND CONCLUSIONS

From 1951 to 1958 inclusive 38 patients with tendinitis calcarea supraspinati were treated surgically. Three had operations on both shoulders, making a total of 41 shoulders. The results are reviewed.

The calcific deposists were evacuated by a simple incision.

In acute cases promt, complete, and permanent relief was obtained by this method, as has been found by previous workers.

It is apparent also from the analysis that in the chronic types, surgery seems to be superior to conservative measures, in respect to relief, duration of treatment, and early fitness for work. There were no recurrences in the present series.

Treatment must be directed at the entire shoulder, an effort being made to obtain and retain a normal range of movements in the shoulder joint.

RESUME

Les résultats du traitement chirurgical de 38 malades souffrant de tendinitis calcarea supraspinati, opérés de 1951 à 1958 inclus, ont été réexamineés. Dans 3 cas, les deux épaules avaient été opérées, ce qui donnait au total 41 épaules.

Le dépôt calcifié a été évacué par un procédé simple, une incision dans la direction des fibres tendineuses.

Dans les cas aigus un soulagement prompt, complet et permanent a

été obtenu par cette méthode comme on l'avait découvert antérieurement.

Cette série montre par ailleurs que dans les cas de type chronique, l'intervention chirurgicale semble supérieure au traitement conservateur tant par rapport au soulagement, à la durée du traitement qu'à la capacité de reprendre rapidement le travail. Il n'y a pas eu de récidive dans cette série.

Le traitement doit être dirigé sur toute l'épaule, un effort devant être fait pour obtenir et maintenir une étendue normale des mouvements de l'articulation de l'épaule.

ZUSAMMENFASSUNG

Die Ergebnisse der chirurgischen Behandlung von 38 Patienten mit Tendinitis calcarea supraspinati, von 1951 bis 1958, wurden besprochen. In drei Fällen wurden beide Schultern operiert, was eine Gesamtzahl von 41 Schultern ergiebt.

Die Kalkniederschläge werden mittels eines einfachen Vorgehens, nämlich einer Inzision in der Richtung der Sehnenfasern, ausgeräumt.

In akuten Fällen wird eine rasche, vollständige und dauernde Heilung, wie sie auch von früheren Autoren gefunden wurde, mit dieser Methode erzielt.

Diese Reihenfolge zeigt weiterhin, dass in chronischen Fällen der chirurgische Eingriff sowohl hinsichtlich der Schmerzerleichterung, der Behandlungsdauer als auch der frühzeitigen Arbeitsfähigkeit den konservativen Massnahmen überlegen ist. In diesem Materiale gab es keine Rückfälle.

Die Behandlung muss die ganze Schulter ins Auge fassen, indem man darauf achtet eine normale Beweglichkeit im Schultergelenke zu erzielen und festzuhalten.

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