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A CASE OF SHOULDER–HAND SYNDROME*

The following case of post-hemiplegic shoulder–hand syndrome is reported because the patient’s condition has been followed through to the stage where symptoms and signs have disappeared and recalcification is apparent in the radiographs.

Case Report

A male hairdresser, aged 57 years, attended the Department of Physical Medicine and Rheumatism at the Middlesex Hospital in November, 1950, complaining of pain in the right shoulder of one month’s duration. The onset was sudden and related by him to an injury to the shoulder when he was alighting from a bus. On full clinical examination no abnormality was found, except restriction of abduction and rotation of the right shoulder. Physiotherapy in the form of heat and exercises to the shoulder was prescribed.

In the following month the patient had a mild right-sided hemiplegia. Two months after this he again attended the department. He then complained of a burning pain in the shoulder, and joint movement was more restricted than it had been before. In March—that is to say, three months after the hemiplegia—pain in the shoulder was less. The patient complained of swelling and a burning sensation in the right hand with paraesthesiae extending from the wrist to all the fingers. Shoulder movement was still much restricted. The hand was hot and tender, and movements of the fingers increased his symptoms. Interphalangeal contracture of the fingers was noted. Movement at the elbow was normal. Radiographs at this stage (Plate II, A) seemed to confirm the provisional diagnosis of shoulder–hand syndrome. The following treatment was prescribed: wax baths followed by massage and movements to the hands, and radiant heat and movements to the shoulder.

Progress.—The shoulder pain disappeared first, some four months after the onset, although the range of movement did not increase at once. The swelling of the hand subsided more slowly and pain gradually became less. X-ray examination after six weeks showed no radiological change.

* Based on a paper read at the Annual Meeting of the British Association of Physical Medicine on April 18, 1953.
A, Radiograph to show osteoporosis in the right hand.

B, Radiograph showing commencing recalcification in the right hand.

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A, Photograph showing clubbing of fingers of right hand.

B, Radiograph to show osteoporosis in the right shoulder.
A Case of Shoulder–Hand Syndrome

Six months after the occurrence of the cerebral vascular lesion, shoulder movement had greatly increased and the hand was normal, apart from minimal interphalangeal joint restriction and a generalized aching pain. Three months later the affected shoulder showed further improvement; the erythrocyte sedimentation rate was 40 mm. in one hour (Wintrobe), and the haemoglobin 106% (Haldane). Repeated E.S.R. and haemoglobin estimations showed that these levels were maintained.

Thirteen months from the onset of his hemiplegia he was back at work as a tobacconist. The shoulder and hand showed no clinical abnormality.

When he was next seen, in December, 1952, no abnormal symptoms were complained of and the shoulder was painless and showed a full range of movement. On clinical examination there was no abnormality apart from a hypertension and increased reflexes consistent with an old right-sided hemiplegia. Further radiographs of the hands (Plate II, B) showed osteoporosis to be less marked than on the first radiological examination. Unilateral clubbing, which had not been found at previous examinations, was, however, noted in the fingers of the right hand (Plate III, A). There was no clubbing of the toes. Radiographs of the chest revealed no abnormality. X-ray examination of the shoulders and elbows showed the presence of osteoporosis on the right (Plate III, B). The patient admitted that he could clearly remember having had pain in the elbow, which was present when his hand was causing discomfort, though he had not mentioned this at the time; no restriction of movement was, however, recorded in his notes. An electrocardiogram was normal in all respects. A Wassermann test and a gonococcal complement-fixation test gave negative reactions.

Commentary

The hand signs suggestive of shoulder–hand syndrome appeared some three months after the cerebral lesion. The pain in the shoulder was the first symptom to subside; within thirteen months of the onset the whole syndrome had cleared up. Mild elbow symptoms and radiological evidence of osteoporosis were present. These have also been described in two cases of shoulder–hand syndrome following hemiplegia reported by Steinbrocker, Spitzer, and Friedman (1948).

Clubbing of the fingers is an interesting and unexplained feature, and in the literature reviewed no cases with this finding have been described. In the present case recalcification appears to have started some twelve months after the patient became free from symptoms; no indication has been found in the literature as to when recalcification was noted by other observers.

The differential diagnosis, according to Steinbrocker (1947a, b), includes scleroderma, bursitis, periarthritis, infective arthritis, scalenus anticus syndrome, and post-infarction sclerodactyilia. The latter condition, described by Askey (1941) and Johnson (1943), is similar to the shoulder-hand syndrome, but usually affects both hands in addition to one or both shoulders. In the case here described, in spite of the raised erythrocyte
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sedimentation rate, rheumatoid arthritis can be excluded. The patient's symptoms remained solely in the right hand; the osteoporosis was generalized, there were no signs of articular damage and no evidence of systemic disease. Steinbrocker found an unexplained raised E.S.R. in two of his forty-one cases.

It is considered that the disability from the hemiplegia was not sufficiently marked to cause the radiological changes illustrated: the hand would have shown abnormal clinical features at the patient's first attendance following the cerebral lesion.

Sudeck's atrophy of the upper extremity constitutes a variety of the shoulder-hand syndrome, although osteoporosis is said to be more insidious in the latter condition.

Summary

1. A man of 57, with a previous history of pain in the shoulder, developed a right shoulder-hand syndrome after a right hemiplegia.
2. Thirteen months after the onset the clinical condition had cleared up completely.
3. Twelve months after the disappearance of symptoms recalcification of the bones was evident in the radiographs of the hand.
4. An unusual feature was the late development of clubbing of the fingers of the affected side.

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REFERENCES


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The rotation exerciser fixed to the wall.

N.S.C. face p. 268}
The roller towel in use.