REMARKS
ON THE
CONTRACTION OF THE PALMAR AND PLANTAR FASCIÆ.

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Dr. Myrtle's interesting paper in the Journal of December 3rd calls for a few observations at the hands of one who has had a not inconsiderable experience in similar cases; and the more so, as his experience seems to corroborate that of Mr. W. Adams in one or two important particulars, and to differ from it in others.

I entirely agree with Dr. Myrtle that gout and rheumatism are not nearly so frequent causes as they have been supposed to be of the contraction; but I differ *in toto* from the statement of Dr. Myrtle that "it is never met with among women". I can clearly recall five cases, and I am sure that I have seen at least seven or eight, in females. Two of these cases are comparatively recent, and in both instances the subjects are young ladies devoted to piano-playing; and I am inclined to think that the strain and irritation caused by the special exercise of the ring-finger (the digit affected in these cases), by placing the adjacent fingers on the notes, and trying to raise the ring-finger and bring it down with force, is the starting-point of the pathological change which produces the contraction. One patient is aged 17, and the other 25. The younger one has the ring-finger of both hands affected, and the little finger of the right is also slightly contracted. The fascial bands are not strongly marked as yet, although the disease has lasted two years; but this may be due to the treatment, which has been extension by splints and friction with oil. In this case, there is said to be a gouty taint on the maternal side, because the mother also suffers from this form of contraction; but I have not been able to ascertain any other evidence of gout in the mother, who firmly believes that she is gouty and comes of a gouty stock. It may be that she is right. The second and older patient has only the ring-finger of the left hand affected, and this is the hand with which she practised her piano-forte exercises most regularly. These cases prove not only that Dupuytren's contraction does occur in females, but that it may be regarded as not very uncommon in them.

Another point brought out by these cases and that of a gentleman aged 35, sent me by my friend Dr. Stephen, and on whom I have recently operated, is, that it may begin quite early in life. The gentleman first noticed it when about twenty-three years old, the first case mentioned above observed it when about fifteen, and the second when about twenty, although age is, as a rule, an important factor in the disease.

This male patient is undoubtedly gouty; and the comparatively simple operation on the left hand produced an acute attack of gout in all the fingers, which necessitated the removal of splints, and was so intractable, and left such tenderness of the joints, that the result is, at present, anything but satisfactory. I think it most important to ascertain if there be other reliable evidences of gout before operating. I undertook this operation without any fear, as I have operated on other cases which at some time or other had had unmistakable gout, and with the most satisfactory results; but the experience of this case will make me very cautious in future. I should add that I felt less compunction in operating, as the patient had been for some time under Dr. Stephen's treatment for gout, and continued this on the day of, and subsequently to, the operation; so that every precaution was taken to avoid an attack.

We know enough of this disease now to be able to recognise several causes, which may be stated thus; at any rate, this is the outcome of my experience: 1, the rheumatic and gouty diathesis; 2, injury; 3, occupation; 4, heredity; 5, neurosis. This may not be the exact order of their frequency as causes, which further experience will alone reveal; but that these are the chief causes, as at present ascertained, cannot be doubted; and they are safe guides to us in treatment. The first set of causes affects the fascia only, as a rule; the second may affect both fascia and tendons, according as the injury has been an incised or lacerated wound or a contusion. In the latter, only the fascia is usually affected; in the former, both fascia and tendon, or only the tendon, may be affected. Occupation may claim a large percentage of cases, as it is not uncommon in boatmen, coachmen, sailors, bootmakers, writers, and even in those who have for years carried a walking-stick and borne their weight on it. It is undoubtedly often hereditary, as in the case mentioned above and in others I have seen, and as in Dr. Myrtle's family. It will be very interesting if Dr. Myrtle will say at what age it first appeared in him and the other members of his family, and if pressure of a walking-stick or any other irritative cause set the action going. I believe in a neurosis, as yet undiscovered, but which the analogy of some cutaneous and other affections ending in contraction tends to make probable as a not very unfrequent cause. But it must be clearly borne in mind that nearly all these causes may be interdependent. Thus, occupation may only be the exciting cause in a rheumatic or gouty subject, or one with a hereditary tendency to this form of contraction; but that it may also be an entirely independent one I have little doubt. Again, the neurotic cases may be, and very often are, hereditary; and even gout and rheumatism may in themselves be neuroses. Then, again, the traumatic cases due to contusions or frictions may often be cases occurring in people with a hereditary or constitutional predisposition. Again, as, among the occupations, only some coachmen, etc., get it, it may in them be due to an acquired or hereditary general or merely local tendency; and the believers in a gouty diathesis as a general blood-disease (which means, if anything, a general tissue-disease) may argue that the diathesis only exposes itself locally in these cases.

Under the neurotic heading I include hysterical cases, which I do not see mentioned in any surgical work or paper on finger-contraction; and the so-called *spastic* cases; and these may affect the fascia and tendons. The fact of the affection being often symmetrical, affecting corresponding fingers of both hands, may be adduced as an argument in favour of the neurotic theory; although asymmetry is no argument against a neurosis, because we know that nerve-lesions are frequently, and in orthopædic practice especially, one-sided. I mean, that the majority of the cases of infantile paralysis I have seen have been one-sided, and several of the spastic cases also.

Dr. Myrtle does not seem to believe in inflammation as a cause. I ask him, why? Take the *occupation* cases, and let me grant that most of them have a diathetic or other hereditary tendency or predisposition; surely he will not deny that the irritation produced by the pressure or friction of their work starts a chronic inflammatory change, which ends in hyperplasia and subsequent contraction of the new material, which resembles the cicatricial tissue of burns in its tendency to great contraction. In the skin, we know that intermittent friction may produce an inflammation, a corn, or a subcutaneous bursa, which, inflaming and communicating with a joint, may result in a bunion; whereas continuous pressure would tend to produce absorption. In manual labour, the skin of the palm becomes much thickened; and the cause which is competent to produce this thickening, and by the only process known to us—viz., irritative hyperplasia—is competent to affect the fascia beneath it, with which it is intimately adherent. I am sure that in many cases there is no need to appeal to hidden causes, as the occupation of the patient is quite sufficient to produce it. Only a short time ago, I operated at the Royal Orthopædic Hospital on a coachman aged 50, whose left little finger was contracted. He attributed it—and I am sure quite correctly—to the dragging and rubbing of the reins, to the flexed position in which he was obliged to keep his hand, and to his having to lift heavy weights, often by the cord or rope attached to them.

I have also noticed the contraction of the middle and index fingers and thumb spoken of by Dr. Myrtle, and shall allude to them more fully on another occasion; but I may now mention that I have seen contraction of the *plantar* fascia (quite independent of talipes) from the same causes as above enumerated. One case was in a sailor, who was much in the rigging barefooted.

Priority dates by publication; but it is mere justice to myself to mention that eleven years ago I divided, and immediately extended and kept stretched, a case of Dupuytren's contraction; and, as most probably Mr. Adams had not heard of my operation, the credit of first drawing professional attention to it is due to him. For many years, I have made it a practice to treat cases of false ankylosis by forcible breaking down and immediate rectification of the deformity, with or without previous tenotomy and division of fascia; and I have treated my finger-contraction cases according to the same plan; but I now think that, in cases in which there is a clear suspicion of gout, our treatment should be more gradual.

A few words as to after-treatment. The fingers and the section of the palm operated on should be well rubbed night and morning with oil, and active and passive motion frequently resorted to, and a properly fitting instrument must be worn at night for some months.