in removing fat the co-operation of the patient is necessary, for on her part there is required change of habits and restraint of appetite. Little can be said regarding the cure of sterility by reduction of fat, but experience has furnished no reason to doubt the favourable influence generally expected from it.

Clinical Remarks

ON

PROGRESSIVE MUSCULAR ATROPHY.

By M. CHARTERIS, M.D.,

PROFESSOR OF THERAPEUTICS IN GLASGOW UNIVERSITY, AND
PHYSICIAN TO THE GLASGOW ROYAL INFIRMARY.

IN bringing this case before his clinical class at the Royal Infirmary, Dr. Charteris stated that he would simply take the patient's illness as he had written it himself, in plain and clear characters. It was an interesting autobiography of an obscure disease, and had been portrayed by an intelligent sufferer, who knew exactly his position and the prognosis of his malady. He would subsequently allude to the leading features of the disease after the patient had been removed from their presence.

"My age is twenty-four years and six months, and I am a clerk by occupation. I have been suffering for the last five years under a very distressing disease. On Aug. 20th, 1877, I was going across the Firth of Forth in a passenger steamer when I felt a sleeping and pricking sensation in the fingers of my right hand. I thought nothing of it at the time, but next morning the same peculiar feeling was still there. I took no notice of it, however, and resumed my work on the following day. I may state that I was a shipping-clerk, exposed to all sorts of weather, and served in that capacity for four years previous to my taking this disease. I continued at my work for another six months, when I felt my fingers get tired and cramped when I wrote for a few hours at a stretch. I consequently went to a doctor, who told me it was 'writer's cramp,' and advised me to take rest. I did take rest for a few weeks, but resumed work again, and continued doing so for another three or four months, when I really felt I could not write more than an hour without taking a rest. It was at this time twelve months (August, 1878) since first I took this disease that my left hand commenced in quite the same manner as my right. I again left off work; and at the request of a brother I had in London, went and stayed with him for a few months. During my visit I went to St. Thomas's Hospital, where I was recommended the same treatment which I had previously got—viz., rest. After a stay of a few months in London I again returned to Edinburgh, and once more resumed work. It was of no use, however, as my hands by this time were getting quite weak; and at this period, exactly eighteen months from the commencement (Dec. 1878), I first noticed a wasting of the muscles of the ball of the thumb. That is where the wasting first commenced. At this stage I determined to get the best advice I possibly could, and with that desire I called upon the late Professor Sanders of Edinburgh, and the result of my examination was that the disease under which I was suffering was pronounced to be 'progressive muscular atrophy.' I really forget the diagnosis he made at the time, but, if I remember rightly, it was in connexion with the grey matter of the anterior horns. The treatment I received was galvanism; the interrupted current applied to both hands and arms twice daily, fifteen minutes each time; medicine, strychnine and iron. He (Professor Sanders) further told me that the disease commenced either in the hands (as it did with me) or the shoulder. If the latter, it took a downward course; if the former, it took an upward course; and unless the disease was stopped it gradually progressed until ultimately it reached the heart and all was over; but the progress of the disease being slow, it would take years before it ended thus. The last experience has shown me that that theory is quite correct, as I have felt my hands slowly but surely getting worse since the commencement. Acting on Professor Sanders's advice, in May, 1879, I went into the Royal Infirmary, Edinburgh, and was treated there in a similar manner as prescribed by him. After a few weeks' treat-

ment there I went home, and bathed my hands daily in sea water, also rubbing them with a coarse towel; but I regret to say that after continuing this for months I felt no marked improvement. Feeling no better, and thinking my disease was getting worse, I again, in 1880, went to the Royal Infirmary, Edinburgh, and was treated there in the same manner as before. Again returning home I stayed with my parents until the latter end of last year, when, owing to family bereavement, I was compelled to leave home and come to Glasgow. I applied for admission into the Royal Infirmary, and when admitted, was treated much in the same manner as already described. I again returned to Edinburgh, and stayed with a brother, till in April of this present year (1882) I again went to Glasgow, and was admitted into the Western Infirmary. After a few weeks' treatment I again returned to Edinburgh, and, as before, stayed with my brother until September, 1882; when, acting on my brother's advice, I once more went to Glasgow, and was admitted into the Royal Infirmary under Professor Charteris, by whose treatment I hope to find my hands much improved before leaving. I may here state that during the time I was staying with my brother, and while I was in the hospital, I used every endeavour to get employment, but regret very much indeed to say I was unsuccessful, as my hands were much against me. I may also state that, being so much knocked about lately, and not being in a position to give myself the same care and attention as I had formerly done, I have no doubt that that has aggravated my disease very much and caused it to progress more rapidly than it would otherwise have done had I been in a position to take proper nourishment, &c. The only hope I now have is that of getting my disease checked, and I do earnestly hope that the means used will have the desired effect."

Remarks by Dr. CHARTERIS.—The cardinal symptom in this peculiar disease, known only for twenty-four years, is atrophy, developing and progressing from certain groups of muscles and accompanied by a corresponding impairment of function. The disease, as a rule, commences in the muscles of the right arm, affecting first the interossei, so that the falling in of the interosseous spaces is perhaps one of the earliest diagnostic symptoms, along with a shrinking of the muscles of the ball of the thumb. Occasionally the disease begins in the deltoid and still more rarely in certain muscles of the trunk (pectoralis major, serratus magnus). The disease, generally commencing in the muscles of the hand, may remain stationary for some time and not proceed beyond the wrist. Gradually, however, it extends over the body, attacking symmetrical groups of muscles, with the exception of the extrinsic muscles of the eyeball and internal muscles of the ear. Occasional arrests, it would appear, in the progress of the disease by no means justify a hope of permanent improvement. The first serious danger to life occurs when the respiratory muscles are attacked and bronchitis ensues. The impediment to the breathing cannot be overcome and may lead quickly to asphyxia and death. In other cases the helplessness occasions the rapid and unavoidable progress of bedsores. Progressive bulbar paralysis is clinically nearly allied to progressive muscular atrophy, and it often complicates the disease to such an extent as to be the immediate cause of death by palsy of the muscles of swallowing and of the larynx or by thrombosis or embolism of the vertebral artery, with immediate palsy of the respiratory centres. It is a disease of middle life, and the male sex show a greater tendency to it than the female. In some cases it appears to be hereditary, and then its approach is observed usually before the twentieth year. Much controversy has existed as to whether the disease is muscular or nervous in its origin, but the weight of authority inclines to the belief that the anterior tract of grey matter of the spinal cord is affected with slow inflammation, embracing cells which are supposed to govern the nutrition of muscles—viz., trophic cells.

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the directors of this fund, held on the 10th inst., Sir W. N. R. Smart, K.C.B., M.D., Inspector General, in the chair, the sum of £55 was distributed among the several applicants. The directors were unable to make any grant in a very deserving case of two orphans of a medical officer who had entered the service after compulsory subscription was abolished, and had neglected during his life to constitute himself a member of the fund by a voluntary subscription.