Ankylosis, hypertrophy, and extreme lateral curvature of the cervical and upper dorsal vertebrae following acute rheumatism, successfully treated by mechanical means ; Complete amputation of male genitals for recurrent epithelioma / under the care of Robert Jones.

STANLEY HOSPITAL, LIVERPOOL.

ANKYLOSIS, HYPERTROPHY, AND EXTREME LATERAL CURVATURE OF THE CERVICAL AND UPPER DORSAL VERTEBRÆ FOLLOWING ACUTE RHEUMATISM, SUCCESSFULLY TREATED BY MECHANICAL MEANS.

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(Under the care of ROBERT JONES, Honorary Surgeon.)

H. F., aged 11, while on a visit to friends at Manchester, fell into a pond and omitted to change his clothing for some hours. In two days he was attacked by acute rheumatism, and suffered in almost every joint. In the sixth week it was noticed that his neck became somewhat contracted and rotated towards the left side, whilst its slightest movement, manipulative or voluntary, gave him much pain. When the fever abated, the neck still remained awry, and the patient was sent home to Ripon. The neck, however, continued to get worse, and in seven months his doctor took him to a large northern infirmary, where he remained an in-patient for some weeks. He was discharged without any attempt being made at reducing the deformity. For the following two years and a half he underwent no treatment.

On October 8th, 1885, he was sent to me from Ripon in a condition of very unusual deformity (Figs. 1 and 2). The

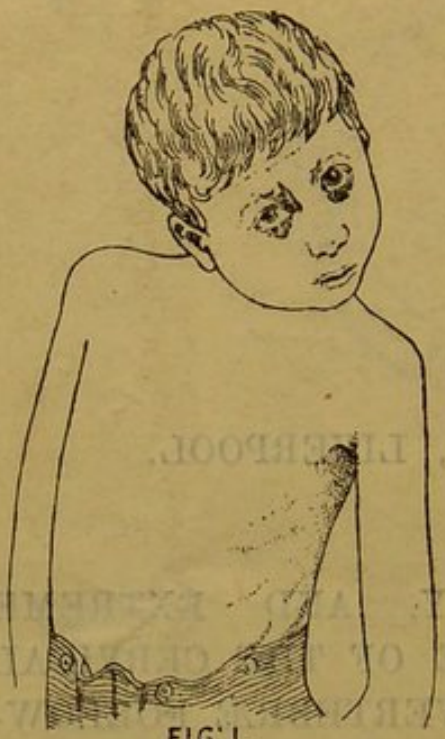

FIG. 1.

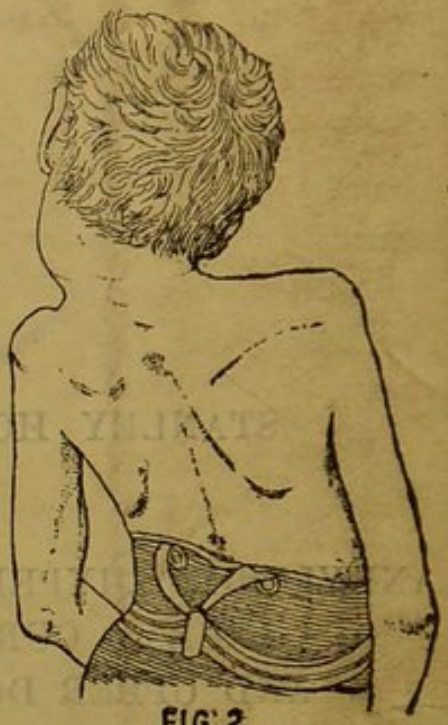

FIG. 2.

angle of the right jaw rested on the sterno-clavicular notch, the face looking almost parallel to the left shoulder. On first inspection, it suggested the appearance of extreme wry-neck. The muscles at the front of the neck were, on the contrary, atrophied from desuetude. It was impossible to obtain even a remote sensation of yielding on trying to elevate the side of the face. The right pupil was widely dilated, and the eye was examined by my colleague, Dr. Karl Grossman, who pronounced the fundus healthy, and the dilatation due to pressure on the sympathetic. For mechanical reasons the little patient's articulation was indistinct, and his respiration sometimes very hurried. On examining him from behind, the bodies of the cervical vertebræ were observed to be enormously hypertrophied, especially to the left side, resembling in appearance a large enchondroma. The tumour was painful on pressure. The vertebræ were ankylosed as low as the fifth dorsal.

The patient was admitted into the Stanley Hospital, and he treatment consisted in a carefully-adjusted process of

graduated leverage. The first stage was occupied by insinuating paper wedges between the jaw and sternum, the wedges increasing in thickness so soon as the slightest yielding became perceptible. By the end of the first fortnight the neck had moved sufficiently to enable us to place around his neck a paper stock. His dyspnœa completely left him, his pupil became normal, and his articulation much improved. The nurse was now instructed to exercise the boy's neck as frequently as she could without giving rise to any pain. Towards the end of the third week the patient could raise or depress his chin to the extent of nearly two inches. This rapidly improved, and by the middle of November there was ample room to place a Thomas's leather collar around his neck. the rotatory deformity remained, however, in abeyance, and the face still looked towards the left shoulder. To remedy this defect, I devised an iron framework to surround the head and allow of suitable oblique traction upon the deformity (Fig. 3). The cervical collar was retained whilst the framework remained, so that rotation could not be gained at the expense of flexion. The edges of the framework were roughly serrated by a few blows with a hammer, so that bandages could not slip. The iron was held *in situ* by means of a plaster waistcoat. This waistcoat fulfilled a double function. The patient carried his spine badly, and we placed him in what Mr. Bernard Roth would call a "key note" position, that is, the position of least obvious deformity, and the waistcoat partially maintained it. The nurse frequently assisted the apparatus by gradual twisting exercises. After wearing the instrument a fortnight, the boy was much improved, and on December 24th he was discharged from hospital, wearing the collar, having

FIG. 3.

been an inmate for a little over two months. At the time of his discharge he had very complete voluntary power over extension and flexion, and could bring his chin opposite the sterno-clavicular notch, and rotate it upwards of four inches to the left.

On his return to Ripon he was taken ill, and failed to continue his exercises, so that, on his re-admission into the Stanley Hospital, On April 9th, his radius of rotation was much diminished. Under proper treatment, however, he soon improved, and, on his discharge presented the appearance delineated in Fig. 4. This case seemed to be very hopeless at first; but, after consultation with my colleagues, Messrs. Sheldon and Smith, it was decided that a mode of treatment should be adopted which would in no way jeopardize the patient's safety; the leverage used was consequently of a very harmless kind. The patient's impaired articulation and respiration, apart altogether from the hideous and painful characters of the deformity, proved the urgent necessity for remedial action. The principle which underlies the treatment of deformities of this type consists in maintaining any advantage gained; hence the value of stocks and wedges. Manipulative exercises without this precaution are simply useless. As soon as the position of the neck is improved ever so slightly, wedge it in that position, so that it cannot gravitate into the old deformity. I have mentioned that the upper dorsal vertebræ were ankylosed. They were also slightly incurvated, the right shoulder being about three inches higher than the left. When the patient was told to stoop, none of the spinous processes of the ankylosed vertebræ projected, a symptom I have on other occassions witnessed and pointed out. I have to thank Dr. Owen for the interest

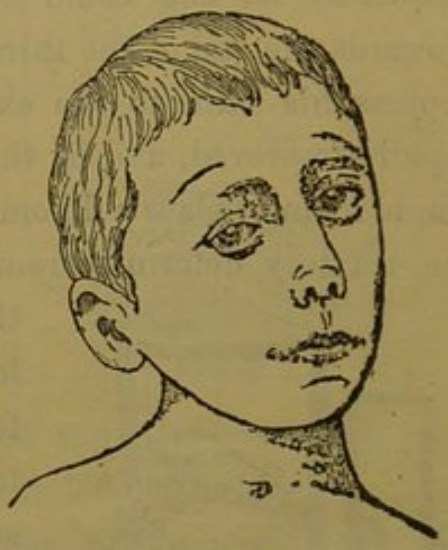

FIG. 4.

he took in this case, and for the excellent photographs from which the diagrams are taken.

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COMPLETE AMPUTATION OF MALE GENITALS FOR RECURRENT EPITHELIOMA.

By Robert Jones, *Honorary Surgeon, Stanley Hospital, Liverpool.*

S. K——,* of good family history, aged twenty-nine years, came to me in April, 1885, suffering from a hardened condition of the end of his penis. There was a small superficial ulcer, which gave rise to very little pain and discharged a small quantity of thin pus. He denied emphatically ever having placed himself in the way of syphilis, and stated that the hardness of the penis had more or less obtained for three months, the ulcer for a fortnight or three weeks. The glands of the groin were enlarged and hardened, and erections of the penis, which were very frequent, were also very painful. Being in some doubt in regard to malignancy, I placed the patient under a mercurial course, and watched the progress of the ulcer. For upwards of three weeks it underwent no perceptible change; its edges were not ragged; there was but little pain; no tendency to bleed or excavate. The edges were barely raised above the surface, the base even, and no eversion of the borders. In fact, it presented no marked features of epithelioma. The induration, however, rapidly increased, until half the penis was of a characteristic leaden consistence. The diagnosis, which was no longer doubtful, was shared by Mr. Rushton Parker and Mr. H. O. Thomas, and the penis amputated early in May, just in front of the pubes. The patient was at his work in a fortnight, the enlarged inguinal glands having meanwhile subsided. For over seven

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* Shewn at the Liverpool Medical Institute.

months the patient was completely rid of the disease, but at the end of the year he complained of soreness at the end of the stump. He came to me in January, when I found the disease had returned at the site of amputation, which was occupied by a tumour, painful on pressure, and freely discharging pus through the urethra. The inguinal glands had again become enlarged, and difficulty was experienced in micturition. The scrotum in the neighbourhood of the urethra had become ulcerated, and the left spermatic cord was much enlarged and indurated about an inch from the inguinal canal. An operation being imperative, the patient was admitted into the Stanley Hospital towards the end of January, where, owing to the kindness of my colleague Mr. Sheldon, I was enabled to treat him.

On Feb. 4th, having made an incision through the length of the raphé of the scrotum, I came down upon the corpus spongiosum, and slowly dissected it from the adherent corpora cavernosa. The cavernous bodies were next followed to their origin, and with a blunt scalpel the crura were separated from the pubic arch. The corpus spongiosum was then divided, the posterior part being left of sufficient length to easily reach the perineal skin wound, the anterior part being included with the cancerous mass.† The left testicle was now removed, the involved cord being dissected high up and secured in the inguinal canal. The right testicle was then excised, together with most part of the scrotum, excepting a flap, into which I made a slit for the reception of the urethra and brought down like an apron over the perineum. The edges of this flap were stitched to surrounding structures, and the urethra made secure to the central opening. The wound was kept as fresh as possible, the patient placed upon light dietary, and an indiarubber catheter maintained in position.

† In dissecting I made a small puncture in the tense corpus spongiosum, and experienced great difficulty in controlling the hæmorrhage, which only ceased by leaving a Spencer Wells forceps upon the gap for about twenty-four hours.

The temperature rose to 102° upon the second day, but was reduced, and the patient recovered, without any symptom of interest in three weeks. In seven weeks he was able to work.

Several cases have been lately reported where the crura have been dissected from the rami after the manner first described by Mr. Pearce Gould. But I have only met with the reports of two cases where the dissection was as complete as that which I now report. One was a case described by Professor Annandale, some years ago, where, if my memory does not fail me, he removed the penis and testes, but did not clear the pubic arch. The other is reported by Mr. Wheelhouse of Leeds, and, if I understand his description, the organ was severed anteriorly to a ligature or switch placed around it in front of the triangular ligament, and he further advised that, should any of the remaining portion of the crura look suspicious, it had better be clipped away. In any case I think it would be well to remove the whole of the crura at once, on the same principle that it is wise to remove the whole and not merely a section of the breast for scirrhus; it adds but little to the complexity or danger of the operation, and may be the means of preventing a recurrence. The case I have reported is also interesting inasmuch as the patient was only twenty-nine years old, and had never been the subject of phimosis. His inguinal glands at the time of operation were extremely hard, and I was sorely tempted to remove them. Indeed in a few days after operation they felt so thoroughly malignant that I appointed a day for their excision. In a few days, however, the hardening quite disappeared. This accords with the observation of other surgeons. In my own practice I have had to deal with only four cases of epithelioma of the penis, in three of which I performed the ordinary flap amputation. In one case a recurrence occured in the glands twelve months after operation. In the remaining three cases the stump was the seat of attack. In that where the glands became affected they were normal in every way at the time of the amputation, whereas in the other three instances they were

enlarged at the time of the operation, but subsequently became healthy. Six months have now elapsed since the operation, and there is no sign of return. The patient is at work; has, of course, full bladder control, and suffers no manner of inconvenience except from a superabundance of skin, which is apt to become damp and irritable, but only to a very slight extent. The general conclusions I have arrived at with regard to future cases are: (*a*) when the diagnosis of epithelioma is beyond question, and the patient of a suitable age, the amputation should include the crura; (*b*) that the testes should, in the majority of cases, be removed; (*c*) that a scrotal flap should be saved as a covering for the perineum; (*d*) that there should be no hurry about excising enlarged inguinal glands; (*e*) the higher up the artificial penis can be brought, the more convenient to the patient, and the sooner it will unite to the surrounding tissues, as the discharges gravitate towards the most dependent parts.

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