EEw Lee (B.)

CLINICAL ILLUSTRATION

OF THE

VALUE OF COMBINING MOTION WITH EXTENSION IN THE TREATMENT

OF

DISEASE OF THE HIP-JOINT.

BY

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A CLINICAL ILLUSTRATION OF THE VALUE OF COMBINING MOTION WITH EXTENSION IN THE TREATMENT OF DISEASE OF THE HIP-JOINT.

I DESIRE very briefly to call the attention of the Society to the two splints which I hold in my hands, both designed for the treatment of coxalgia; to point out the respects in which they differ, and to give my reasons for preferring the one to the other. This one, as you observe, is attached at its lower end to a shoe, and at its upper end to a broad band encircling the trunk from the hip to a point half way up the thorax. It is provided with a perineal strap for counter-extension. It has no joint corresponding to the hip-joint, and, so far as it is effective, prevents all motion through that joint. Its object is, therefore, *extension with fixation.* If the disease is healed while this splint is worn the result must evidently be anchylosis, entire loss of mobility in the joint. The chances, however, are strongly against healing, if the patient is allowed to walk; since the weight of the body is borne upon the sole of the foot in contact with the sole of the shoe, and every shock is thus communicated directly to the joint. This splint I removed a few weeks since from a little patient for whom it had been prescribed by a very distinguished surgeon, and to whom it had been applied, not by the surgeon himself but by the instrument-maker, more than a year ago, the result being that the case was very much worse when brought to my office than when the instrument was applied. I must confess, however, that full justice had not been done to the appliance, as I found the perineal strap hanging quite loose, and was told by the parents that the surgeon had said that it was of no use,—which was partly true.

This second splint is the counterpart of one which was worn for two years by the gentleman who has accompanied me upon the platform, and who has kindly consented to submit himself for examination. You have noticed that he is a vigorous man, with perfect freedom of locomotion, and that he ascended the step

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without the slightest halt in his gait. As, however, this is not a perfect test, I will request the appointment of a committee to attest my assertion that the legs are of exactly equal length, and that for all the ordinary purposes of life there is perfect mobility of the joint. If this be the case you will allow, after hearing his history, that he is a living refutation of the *dictum* of most of our surgical text-books, a *dictum* ably sustained by my friend Dr. Allis in a paper before the Philadelphia County Medical Society, some two winters since, that the "best result to be obtained in hip-disease" after suppuration has occurred is anchylosis in a partially flexed position. He was placed under my care by a physician of Reading some sixteen years ago, being then about seven years old, and in the second stage of the disease. He was much emaciated, very pallid, with frequent pulse and high temperature, entirely unable to walk, and suffering excruciatingly, so much so that I had great difficulty in applying the splint. Efficient extension, however, soon relieved the pain, and it never returned to any extent. The pus made its way to the surface and discharged by multiple sinuses on both the inner and external aspect of the thigh, which continued open for more than a year. There could be no doubt therefore as to the nature of the case. I have refrained from publishing it until now, in order to assure myself of the permanence of the cure, and not to add another to the numerous cases of reported cures, which, at the end of a year or two, relapse and fall into the hands of another practitioner. (I may say that the little patient first referred to was at one time during the past year pronounced absolutely free from disease, and yet I found him with an intra-pelvic abscess, showing perforation of the acetabulum.) In the case before you the maintenance of a healthy condition of the joint for fourteen years, I think, gives us a reasonable assurance of permanence.

Now allow me to indicate the peculiar features of the splint to the use of which this very satisfactory result is attributable. First, Instead of being attached to the shoe, it passes down, as you will observe, underneath the foot and is attached to the limb by means of adhesive plasters, making equal traction on both sides of the limb. Secondly, There is a considerable interspace between the sole of the splint and the sole of the foot; hence the weight of the body is borne not upon the foot but upon the splint, and through the splint transmitted directly to the perineum, so that all shock is conveyed not to the joint, but to the perineal strap. Thus the patient walks virtually upon a perineal crutch. Thirdly, There is a compound joint at the hip capable of both lateral and antero-posterior motion. Hence,

while by means of a powerful ratchet we maintain extension, we allow at the same time free motion through the joint in every normal direction. Fourthly, By means of a set-screw at this joint we can produce abduction of the limb through the lateral portion of the joint by the aid of, Fifthly, The counter force of a perineal strap upon the opposite side acting upon the firm metallic hip-band which completely encircles the hips at the level of the joint. We thus antagonize the tendency to adduction which occurs in the latter part of the second and in the third stage of the disease. While, therefore, all that we can hope for with the first instrument under the most favorable circumstances is absolute anchylosis, with the second we have a reasonable hope of securing a degree of motion which, as you see, is, for all practical purposes, perfect. At the same time, locomotion being made easy and painless, the patient has the immense advantage of free exercise in the open air, the benefits of which, both moral and physical, in cases of mal-nutrition it is difficult to over-estimate.

I now, Mr. President, respectfully ask for the appointment of a committee to report upon the condition of this joint.

Report of Dr. De F. Willard, member of Committee appointed to Examine the Condition of the Hip-Joint and Leg in the case presented by Dr. Benjamin Lee.

The other members of the committee appointed to examine the case presented by Dr. Lee being absent, the undersigned presents the following report:—

The limb was found to be of the same length as its fellow. Extension was perfect without movement of pelvis, but flexion beyond a right angle and rotation drew the pelvis after the femur. The man walked with great facility, and there was no induration about the joint.

(Signed) DE F. WILLARD.