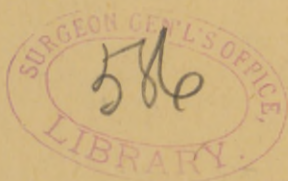


MARTIN (F.C.)

Martin's method of  
treatment of synovitis xxx

xx





Martin

Reprinted from THE MEDICAL RECORD, February 7, 1885.

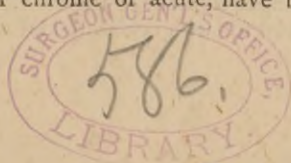
## MARTIN'S METHOD OF TREATMENT OF SYNOVITIS, ESPECIALLY OF THE KNEE-JOINT.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: The announcement of the surgical uses, other than hæmostatic, of the pure rubber bandage, was made to the American Medical Association by my father, Dr. Henry A. Martin, at Chicago, in 1877. Since that time the almost constant reports of new applications of its use, in very varied requirements of surgery, and its universal adoption in all parts of the world, have given it a most prominent position among the appliances of modern surgery. Although in the minds of many physicians the use of the bandage is associated chiefly with the treatment of varicose veins, eczema, and chronic ulcer of the leg—yet the greatest benefit is to be obtained from it in many other affections, and this is true in the highest degree of inflammations of, and effusions into, the joints:—notably the varied degrees of synovitis of the knee.

At the International Medical Congress at London, in 1881, my father presented a concise paper giving his special investigations in regard to this subject. This paper is published in the Transactions of the Congress. Since his return, he has devoted himself very earnestly to following out the method of treatment which he advocated there, and it was his intention to lay the whole matter before the American Medical Association at the coming meeting, next summer. Owing to his sudden death, this will be impossible, but as I have kept the records of his cases, and have operated on and had charge of many of them, I may be permitted to set down briefly some of the results that have been arrived at.

During the past thirty-one years over four hundred cases of synovitis of the knee and its sequelæ, of every form and degree of severity, in every variety of diathesis and complication, however chronic or acute, have been





treated by the use of the pure rubber or "Martin" bandage—applied to the limb from the foot to above the knee. The joint is previously strapped from three inches above to a corresponding point below the patella, with non-irritating rubber plaster. This strapping is not applied for the ordinary reasons, but to obviate, or at least mitigate, a troublesome chafing of the skin in the popliteal space, from walking exercise while the bandage is on the limb. One such strapping will remain *in situ* for four or five weeks, and in a very large proportion of cases has not to be repeated. The plaster, however, must be perfectly non-irritating. The bandage should be applied as tightly as the patient can wear it with comfort. There is no danger to the circulation by following this rule, as no dangerous constriction of the limb could be endured without pain and discomfort. The bandage thus applied should be worn in general for from four to six weeks, according to the severity of the case, day and night; and, after that, during the day only, or while in the upright position, for from four to eight weeks longer. Many patients prefer to wear them a good deal longer, to prevent any possible return of trouble, but this is in general not at all necessary.

When the bandages are thus applied, great comfort and support are at once experienced, and with these much increased capacity to use the joint. Very soon it becomes evident that absorption of effused fluid, and of the interstitial deposits in the tissues of the synovial sac, and of the other tissues about the joint, is going on; and, in a space of time too short to be credible to those who have not accurately pursued the practice, and carefully and repeatedly observed the fact, the enlarged and weakened articulation is restored to the normal size, and, if not immediately to its original strength, to a far greater capacity for use, and eventually to a perfect restoration in all respects.

In cases where the amount of fluid effusion within the sac is small, or where the thickening of the sac is the principal element of the case, these results may be always looked for with certainty and rapidity. Sometimes, how-

ever, when the amount of fluid effusion is very large, the use of the bandage *alone* (although of the greatest value as a palliative, by strengthening the joint, and permitting painless use of the limb) will produce *complete* absorption of the fluid very slowly, if at all. The existence of these exceptionally obstinate cases induced my father, some twelve years ago, to add to the use of the bandage a preceding thorough aspiration of the sac, all the other points of treatment being exactly as before described. This was done at first only in exceptionally obstinate cases, in which the effusion within the synovial sac was large, but the operation was gradually found to be entirely free from danger, and latterly aspiration has been practised in all cases in which, being chronic, the synovial effusion is of any considerable amount, and even in the most acute cases in which rapid effusion produces great distention and consequent pain. The results of my father's experience are summed up in the following statements :

1. In the last twelve years over two hundred cases of synovitis of the knee, and its sequelæ, have been treated by aspiration with a single strapping of the joint, and subsequent use of the bandage.

2. In these cases the knee-joint has been punctured over four hundred times.

3. In all these cases, with the exception of a very few, and these only in the early stages of treatment, the patient was not only permitted, but obliged to take a daily and considerable amount of walking exercise.

4. In not a single instance has there been failure of absolute and entire cure, requiring, in one case, seventeen weeks, but in no other more than eleven weeks.

5. Although no antiseptic measure, beyond perfect cleanliness of the aspirating needle, was employed, in not one instance has any ill symptom followed the operation. When the needle is withdrawn, the puncture is at once covered securely with adhesive plaster.

Sir Benjamin Brodie long ago declared most emphatically, that when the synovial sac is distended with fluid, it can be punctured, and the effusion drawn off with perfect safety. He does not by any means regard this as a

help in treatment, however, as he says the fluid will accumulate again, and in a few hours the joint will be as much distended as before. The originality and value of my father's method of treatment lies in successfully demonstrating the fact that thorough aspiration of the knee-joint, followed by proper use of the rubber bandage, gives us a complete and satisfactory method of cure in even the worst cases of synovitis. By the firm and equable pressure of the rubber bandage, the re-accumulation of fluid is checked. If there is any return of the fluid at all, it is in very much diminished quantity, and a second, or perhaps in severe cases a third, aspiration of the joint is all that is ever required. One great advantage of it is to explode the idea that perfect rest of the joint is the only way to hope for a cure. The patient is emphatically *not* to be confined to bed, or, worse still, to a fixed splint. When the joint is strengthened by a properly applied rubber bandage, exercise is a very great and important adjunct in the treatment. This very day I have visited a lady who passed last summer in Switzerland. While there, she was attacked with acute synovitis of the left knee, with large amount of effusion into the sac. She was kept in bed, with the limb placed on a fixed splint and continually poulticed. After sweltering through the hot weather with the limb swathed in many thicknesses of cotton wadding, at the expiration of two months the splint was removed, and—she has come home with a joint almost immovable! I am sure that had this case been treated by prompt aspiration of the sac, and the proper use of the rubber bandage, a perfect and rapid cure would have resulted without a week's confinement of the patient to her bed.

I trust that other surgeons will have employed this method of treatment in a sufficient number of cases, to make a thorough discussion of it possible at the next meeting of the American Medical Association.

FRANCIS C. MARTIN, M.D.

ROXBURY, MASS., December 22, 1884.





