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A

NEW, SIMPLE AND SAFE

Method of Preventing Hemorrhage

TREATING ANEURISMS,

And Applicable for Other Surgical Purposes.

Editorial from April Number of the *Cincinnati Medical News*, edited by J. A. THACKER, A.M., M.D., F.R.M.S., London, Fellow of American Academy of Medicine, etc.

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A New, Simple and Safe Method of Preventing Hemorrhage, Treating Aneurisms, and Applicable for Other Surgical Purposes.

The heading we here give, quite a lengthy one, is the title of a paper read recently before the Academy of Medicine, of Cincinnati, by C. S. Muscroft, M. D. The paper recounts an operation of amputation at the hip-joint performed by the Doctor at St. Mary's Hospital, Cincinnati, on August 10th, 1886.

As our readers are aware, the excessive hemorrhage that is liable to occur, in consequence of the great size of the femoral artery, during the operation of amputating at the hip-joint, is a subject of the gravest consideration to the surgeon. An uncontrolled hemorrhage, but for a moment or so, may result fatally. A possible great loss of blood, therefore, in Dr. Muscroft's case, with fatal consequences, had given him, previous to the operation, no little anxiety. He studied carefully the various plans adopted by distinguished surgeons for controlling the hemorrhage, but none of them being satisfactory to him, he concluded to reject them all and devise a plan of his own.

When the patient had been made ready for the operation, having been brought under the influence of chloroform, Dr. Muscroft explained to the medical gentlemen, who had assembled in the operating room to witness the operation, the plan he had concluded to adopt for the purpose of restraining hemorrhage.

On beginning the operation, Dr. Muscroft, the patient having been fully anesthetized, as intimated, seized a needle one-eighth of an inch wide, slightly bent at the point, about the thickness of a dime and four inches long, and introduced it perpendicularly into the front of the thigh, about an inch and a half below Poupart's ligament. The exact point of entrance was one-fourth inch internal to the combined sheaths of the vein, artery and nerve. The point was pushed beyond the vessels, then turned outward until the needle had passed beyond them; the point was then pushed

out through the integument. The needle was then behind the vessels and nerve. A piece of cord was passed under the heel and point of the needle, forming a figure of eight ligature. Before the ligature was applied the femoral artery could be felt pulsating strongly, but when it was tightened the pulsation below the needle had ceased entirely. This, to say the least, was very encouraging.

We will now describe the manner of performing the operation; as, in doing so, it will be more easy to understand the *modus operandi* of the needle and the figure of eight ligature in preventing hemorrhage.

The oval form of operation was decided upon. An incision made with a bistoury was begun on the outside of the upper part of the thigh and pelvis, an inch above the trochanter major. It was carried down three inches; then a diversion was carried posteriorly through the gluteal muscles as far as the inside of the thigh; another diversion was made anteriorly, nearly as far as the sheaths of the large femoral vessels. There was but little bleeding from the gluteal or sciatic arteries. The head of the femor was readily dislodged from its cavity, and the upper part of the os femoris cleared from its attachments. A catlin was then used to separate the remaining tissues containing the femoral artery. When this was done, the profunda femoris had to be ligated. The femoral artery was perfectly compressed, standing out in bold relief from the surrounding tissues for three-fourths of an inch, *but had not bled a drop.* The artery was held by the finger and thumb until a ligature could be permanently applied. The needle was then withdrawn, *no blood whatever flowing from its presence.*

It is stated that the perfect control of the artery filled the bystanders with admiration and delight. We think if Dr. Muscroft does not deserve a feather in his cap in consequence of the wonderful success of his invention for preventing hemorrhage, in such operations as he performed, in which fatal bleeding is so apt to occur, we do not think any surgeon ever merited a feather for any success that ever attended him in an operation. A general of an army gets great honor for obtaining a victory over a general of another army from which thousands of human beings have been slain and mangled; but by how much more should honor devolve upon a surgeon who, as the result of deep reflection and scientific skill, has devised a method of so preventing hemorrhage that an operation is made feasible in many cases in which it would not be when a great loss of blood would probably attend upon it, and thus valuable life is saved not merely in some particular instance, but during future time.

We have not space in the present number of the MEDICAL NEWS to give more than an incomplete outline of the paper of Dr. Muscroft, and consequently must omit many interesting points. This simple method of preventing bleeding which he has devised, he has recently employed successfully in an amputation at the shoulder joint. He further claims for it that it can readily be employed in any case of severe hemorrhage from the extremities, whether from gunshot wounds, railroad accidents, or serious bleedings from any cause. In such cases he states that it is only intended to restrain the bleeding until permanent ligation can be accomplished. This form of compression can be used for hours, or days if need be, without complicating in any way other surgical procedures.

It can be applied, he continues to say, to any part of the extremities in shorter time than the tourniquet. It has the advantage of not causing the pain or swelling produced by the latter mode, nor does it require an assistant. Dr. Muscroft has employed this compression to shut off the circulation of the femoral artery below Poupart's ligament for a secondary bleeding after amputation of the leg. The result was all that could be desired. The pin remained in place four days. After removing the pin no dressing was needed, nor was there any unpleasant result.

Dr. M. claims that this method of cutting off the circulation will prove the simplest, easiest and most effective in the treatment of aneurism in any part of the lower extremities, or in the axilla or other part of the upper extremity. In the latter part, the axillary artery can be readily compressed below the clavicle.

Dr. Muscroft believes, and we have little doubt of it, that this mode of controlling arterial circulation will no doubt open a new field in surgical procedures, its application being so simple and easy of accomplishment.

In the discussion of the paper before the Academy of Medicine, one of the speakers claimed that Dr. Muscroft's method is, "in essence, but acupressure, which has been thoroughly tested and is not to-day regarded with very much favor. In reply, Dr. M. claimed that his measure and acupressure are not at all identical—acupressure never having been employed as a prophylactic, and only in open surfaces, after, and not before, an amputation. We ourselves have never heard of acupressure being employed for restraining arterial hemorrhage previous to an operation—as an amputation.