TREATMENT OF FRACTURED FEMUR AT THE SITE OF THE CASUALTY

BY

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[In the *British Medical Journal* of October 5, 1918, the author, then a temporary captain in the R.A.M.C., described a method for the immediate treatment of fracture of the femur on the battlefield at the site of the casualty. Several references to that paper have appeared recently in our columns, and the suggestion is made that the substance of it might well be reprinted if only because regimental medical officers and their stretcher-bearers would welcome some occupation to relieve the tedium of a winter campaign. In explaining the scope and objects of his method the author made it plain that it is not a rival to the far more satisfactory Thomas splint; but the first place at which a Thomas splint is available is not at the site of the casualty but perhaps at the regimental aid post, or, if active operations are in progress, not until the advanced dressing station in most cases. Up to this point the nature of the ground may render constant jolting and severe undulation of the stretcher inevitable. This is by far the roughest part of the patient's transit to a casualty clearing station, and also by far the longest in time. This journey used to be undertaken with the aid of a very ineffectual rifle splint, or more generally with no splint at all. The method now redescribed was chosen for use by regimental stretcher-bearers at the place where the casualty had occurred. It was used with effect under the conditions for which and under which it was evolved.]

The Method

The principle of the method is the application of a very powerful extension, followed by fixation in the extended position.

A stretcher and two stretcher slings are required. It is the rule for each of the four bearers in a squad of regimental stretcher-bearers to carry a sling. Thus two slings are still available for carrying the stretcher (should this method of carrying be possible or desirable). If there are no slings puttees can be used. Spare slings should be available at aid posts. The procedure is as follows:

1. Expose and dress the wound.
2. Enlarge the adjustable loop of one sling to its maximum by shifting the grip plate as far as ever it will go. Slip the loop over the foot on the injured side, and pass it up as far as the groin.
3. Tie the ankles and knees firmly together (with narrow-fold triangular bandages, or other bandages or makeshifts).
4. Open the stretcher and place on it a small pillow where the knees will be. (A waterproof sheet, doubled from side to side and loosely rolled from end to end, makes a suitable pillow.)
5. Place the patient on the stretcher so that his heels project an inch or two beyond the edge of the canvas, or more if he is a tall man. The heel on the injured side should be a little lower than the other if possible.

FIG. 1.

FIG. 1.—Securing the feet. Note small loop end passed through large loop, and small loop itself turned inside out, bringing small strap *inside* the small loop.

FIG. 2.

FIG. 2.—Securing the feet. Note end of sling passed through large loop before buckling off. Small loop turned inside out, bringing small strap *inside* the small loop.

6. Adjust the loop of the other sling so that it is equal in length to the distance between the poles of the stretcher (1 ft. 7 in.). Slip it over one handle and wind very tightly about the feet, as shown in Figs. 1 and 2. That is to say,

pass it from one handle across the soles of both feet, up across both insteps, behind both ankles, down across both insteps, *then through the loop* (to avoid torsion of the feet), and thence across the soles of both feet to the opposite pole. Secure by buckling the small strap round the opposite handle, making all as taut as possible. To avoid the small strap tearing away owing to the strain, the small loop to which it is sewn should be turned inside out, thus causing the strap to pass actually through the small loop.

7. Gently raise the stretcher almost into the perpendicular, so that the patient is hanging by his feet. Draw the patient down head first as far as he will come (Fig. 3). (If the patient

FIG. 3.—Obtaining extension.

continues to have pain he may be left for a few minutes until the muscles are tired. He may then be drawn down a little further.) The stretcher may be propped up against something.

8. See that the back part of the loop is well behind the buttock. Adjust the loop so that the grip plate will almost lie on the surface of the stretcher when the strain is taken. (This position of the grip plate tends to correct the flexion abduction and external rotation of the upper fragment.)

9. Put a very heavy strain on the groin sling and secure by buckling the small strap round the pole handle by the head in such a way that it does not rotate and slip (Fig. 4).

FIG. 4.—Note that the dressing on the wound, the bandages round the ankles and round the knees, and the bandage securing the pelvis to the stretcher are omitted for the sake of clearness. Also the rifle, which may be placed (bolt removed) along the outside of the limb to steady it.

While making fast the strong pull must be kept up in order that everything shall be taut after making fast. (There is no possibility of the groin loop constricting the femoral vessels, as in the rifle splint and a badly applied long Liston, for the sling loop is so oblique that it does not cross these vessels at all.)

10. Level the stretcher. Tie a bandage round pelvis and stretcher. Lay a rifle, bolt removed, along the outside of the limb to steady it. Bandage it in position. The patient is now ready for his journey.

Ascorbic Acid and Peptic Ulcer.—In a study of the requirements of ascorbic acid in patients with peptic ulcer it was found that five patients with duodenal ulcer utilized 20 per cent. more ascorbic acid than did normal individuals. It is pointed out that the usual Sippy diet contains much less than the normal requirement of ascorbic acid. This deficiency is easily remedied by the addition of the juice of one or two fresh oranges to the daily diet.—Ascorbic Acid Requirements in Patients with Peptic Ulcer. H. A. Warren, M. Pijoan, and E. S. Emery.—*New Engl. J. Med.*, June 29, 1939, 220, 1061.