

OUT OF THE ARCHIVE

Editor's Note

This paper first appeared in the Journal of the Royal Army Medical Corps in August 1903.

A Case Of Spear Wound Of The Heart: Operation And Recovery.

By The Late Capt. T. McARDLE.
Royal Army Medical Corps.

The following case, in which a barbed spear was embedded in the chest, passing through the wall of the left ventricle, but without entering the cardiac cavity, successfully treated by operation, may be of some interest.

A. M., a Soudanese man, aged about 36, was admitted to Kassala Military Hospital on July 19, 1901, with a barbed spear stuck in his chest. Its point of entrance was near the lower angle of the left scapula, and it projected about two inches in front, at a point midway between the left nipple and the midsternal line, and one inch above the nipple (see fig. 1). On admission, the patient had some difficulty in breathing; there was very little pain, and only a slight oozing of blood from the wounds. An attempt to withdraw the spear caused considerable pain. On the following day I found the patient sitting up in bed owing to dyspnoea; pain very slight; pulse 92; respiration 28. The cardiac sounds were tumultuous and oppressed, but like those of an engorged heart. The chest was resonant under the left clavicle, but there was a complete absence of respiratory sounds over that area. Respiratory sounds were audible at the back

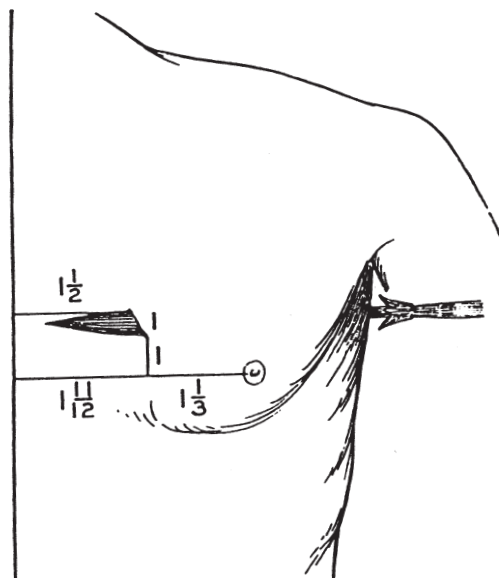


Fig 1.

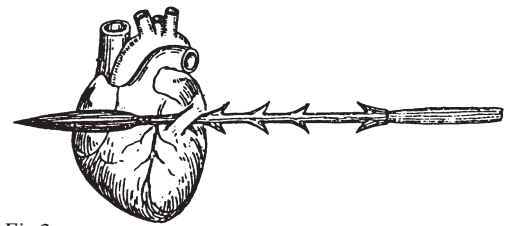


Fig 2.

of the left chest, but dullness on percussion was manifest over base of left lung.

Having taken all the precautions possible to ensure asepsis, chloroform was administered, and the following operation carried out: A shaped incision was made, the vertical portion corresponding to the entrance wound, the horizontal portion being six inches long, and carried around the chest forwards. Through this incision two inches of the sixth rib were removed, and six barbs of the spear freed. Believing that the spear was now free, traction was made on it: but the effort caused sudden syncope and gasping respiration. At the same time a free muscular mass appeared in the wound, a piece of which held another barb, as indicated in the diagram (fig 2). This fleshy fragment, which was about one-eighth of an inch thick, and caused by the spear passing through the margin of the left ventricle, was now divided, the spear rapidly withdrawn, and the wound plugged with a sponge. Gradual restoration of pulse and respiration followed; the wound was sutured, &c., and the patient put to bed. The man recovered consciousness in a few minutes, with respirations 40 and pulse 100 per minute. In the evening, both the pulse and the respirations were the same, the heart sounds were clear and un-laboured, in marked contrast to the condition before operation. From the time of operation the patient made an uninterrupted recovery, the respirations and pulse falling to normal. The following is the note for July 30: Temperature 99.2° F., respiration 18, pulse 70. Wound completely healed up, except at the point of entrance of spear, from which there is a very slight discharge. Patient able to walk about the ward.

On August 8, on which date I left Kassala, the following note was made : Temperature, respiration and pulse normal ; no discharge from the wound, which is now almost quite healed up. Respiratory sounds normal. On percussion, dullness at back of left chest. In front, the left side of the chest is not so resonant as right. Chest in front slightly flattened on left as compared with the right side. A letter from Kassala, dated October 4, 1901, stated that the patient was doing well.

The points of interest in the case appear to be as follows:-

(1) The slight general influence produced by operative interference with the cardiac muscle, and the rapidity of recovery.

(2) The profound disturbance caused by change in the cardiac position, as shown by the apparent (for the moment) fatal syncope which followed traction on the spear fixed in the ventricular wall.

(3) The peculiar modification of cardiac sounds produced by the presence of a foreign substance in the cardiac wall.

In March, 1902, nine months after the operation, Capt J.H. Rivers, R.A.M.C, wrote to me from Kassala stating that he had seen this man, and that he was in perfect health ; that he could detect no abnormality in the condition of the heart or left lung, and that the man was able to carry out efficiently his duties as an agricultural labourer.