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GUNSHOT WOUND OF THE HEART WITHOUT PERFORATION OF THE PERICARDIUM.

By A. F. HOLMES, M. D., Professor of Medicine, M'Gill College.

To the Editor of the British American Journal of Medical and Physical Science.

Though the publication of cases of unique character is of comparatively little importance, yet, as I am of opinion, no fact should remain unrecorded, of which there is a probability that it may hereafter become useful, I send you a statement of a very remarkable case that occurred to me in the month of December, last year, and which, should there ever be a new edition called for, of "Les Cas Rares," would richly deserve a place in that "receuil" of medical curiosities.

In the month of December, 1844, during the Municipal elections, a riot took place, in the course of which, an attempt was made by some of the parties engaged to force their way into a house occupied by their opponents. A young man of the name of Johnston, being the foremost of the assailants, was, while attempting to force his way up a staircase, fired at and mortally wounded. He lived but a very short time.

I was called to see him, and subsequently, at the request of the Coroner, and in conjunction with Dr. Hall and Dr. C. A. Campbell, I made an examination of the body.

Externally, several wounds were visible, (the musket having been probably loaded with buck-shot,) on the left side of the chest. Only one had penetrated its cavity. The shot had entered at the upper edge of the fourth rib just at its union with its cartilage, carrying off the edge of the bone. With the view of obtaining a better view, the left ribs were sawed low down, and then the sternum carefully raised. The appearances presented, were a bloody ecchymosed condition of the anterior part of the left lung as it laps over the pericardium; a bloody and infiltrated state of the cellular substance lying on the pericardium; and an ecchymosis of the extent of about 1¼ inch, filling the anterior edge of the right lung, where it lies in contact with the pericardium. The pericardium evidently contained a large quantity of fluid, the nature of which was denoted by the colour of the membrane.

Feeling convinced of the perforation of the pericardium, I carefully cleared it of the adhering ecchymosed cellular substance, a proceeding which I afterwards regretted, as it prevented our tracing what must have been the track of the ball. We then examined the left lung, and found it had been struck near its anterior edge, and the pleura covering it torn, showing a circular aperture, as if the ball had penetrated the lung—no corresponding aperture for its exit could be found, and a probe could be passed but a very short way into the substance of the lung. Nearly a pint of bloody serum, but without clots, occupied the cavity of the pleura. The pericardium was then examined with the greatest care, every part showing the least appearance indicative of the passage of the ball, being closely investigated. The sac evidently containing a large quantity of blood, it never occurred to us that the heart could have been wounded unless after the perforation of its envelope. Finally, supposing that the ball might have entered so as to produce a kind of valvular opening, I surrounded the pericardium with my hands, and squeezed it with considerable force. No fluid issued, and then, despairing of discovering the supposed perforation, I slit open the membrane, and gave exit to a large quantity of bloody serum and clots of blood. There was seen on the anterior wall of the heart, penetrating the right ventricle, a transverse linear opening without laceration at the margins, which were smooth and rather turned inwards, and sufficiently large to admit the finger. Feeling sure of now finding the ball, the finger was introduced. The septum ventriculorum was found uninjured, but no ball could be perceived.

The engorged portion of the right lung was then examined, and it was found that immediately within its edge, on the mesial aspect, a hole existed in the pleura, which did not, however, penetrate into the substance of the lung.

Finally, the lungs and heart were removed from the body, and there was then found lying in the right cavity of the pleura, a piece of lead of an irregular figure, about the size of a buck-shot.

Though unable to point out the track of the ball, yet the injury of the left lung, the bloody state of the cellular substance over the pericardium, the ecchymosis and wound of the right lung, the direction of the wound in the heart, and the discovery of the ball in the right