

ACCOUNT OF A CASE
IN WHICH
AN ABSCESS IN THE NECK
COMMUNICATED BY AN ULCERATED OPENING WITH THE
ARCH OF THE AORTA,
AND IN WHICH THE HÆMORRHAGE DID NOT PROVE FATAL
IN LESS THAN FORTY-EIGHT HOURS.

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ON the 1st June 1846, I was requested by Mr. Sturton, the Parish Surgeon of Greenwich, to see a woman in the Union Workhouse, in whom considerable hæmorrhage had occurred, from an ulcerated opening in the neck. He had been called to the patient about 4 A.M. on the same day, and was informed that the bleeding had commenced suddenly about an hour previously, and without any apparent exciting cause. He found that it proceeded from a small fistulous opening in the lower part of the neck anteriorly. The woman had lost a considerable quantity of blood before he saw her, and very slight pressure sufficed at that time to stay the flow. As I was unable to see the case before the evening, I recommended that in the mean time a graduated compress should be retained upon the opening. In the evening I found that no further hæmorrhage had taken place.

On removing the bandage and compress, I observed, exactly in the mesial line of the neck in front, and close above

the upper edge of the sternum, a funnel-shaped hollow, about an inch and a half across, lined with the common integument down to the bottom, which presented a fistulous opening about one-eighth of an inch in diameter, and in this opening were visible some small florid granulations. The whole presented very much the aspect of an old callous fistula in which it might be supposed a tracheal cannula had been long worn. There was however no communication with the windpipe.

The parts surrounding the fistulous opening were thickened and consolidated.

At first, after removal of the compress, I was unable to obtain any discharge from the opening even by pressing with considerable force, in its neighbourhood, and I thence concluded that the cavity, if there were one, with which the opening communicated, passed under, and was protected from pressure, by the sternum and clavicles. At first, neither blood nor pus escaped, but, upon the woman being desired to cough several times, the funnel-shaped hollow became suddenly filled with arterial blood, which welled up continuously from the bottom, and not in jets; but upon more close inspection it could be seen that it rose with indistinct intermissions. The bleeding though slow was sufficiently copious to be alarming, and was immediately and readily stayed as before, by slight pressure with a compress and bandage.

The patient was a woman about thirty-five years of age, moderately stout, and well formed. She presented no marks of scrofulous disease in the neck. She was pale from the hæmorrhage, and became faint when placed upright for a few moments. The account she gave of her case was this: that for about fourteen years she had perceived a small hard "lump" in the hollow of the neck, and in the situation of the existing fistulous ulceration, from which swelling she had, however, never suffered any pain nor even inconvenience, until her admission into the Greenwich Union, about six months previously. Soon after this, the swelling in the neck inflamed and suppurated. The abscess was allowed to open spontaneously, which event had occurred about five months

before the present time. On bursting, it discharged a large quantity of *white* matter, and had continued to discharge such ever since, sometimes in considerable quantity. This constant discharge constituted all the annoyance she experienced from the affection, her breathing never having been impeded, nor had she ever any cough.

The hæmorrhage did not recur till the following morning, when blood was observed to ooze through the bandages ; and a neighbouring surgeon, Mr. Bradley, being called in, removed the compress, upon which the blood was ejected in a jet which rose above his head. He immediately stopped the orifice, and the external flow of blood, which appeared then to fill the cavity of the abscess, and to cause considerable swelling of the lower part of the neck, and supra-clavicular regions, attended with a diffuse pulsation like that of an aneurismal tumour :—this was the first occasion of any pulsation being perceived in the neighbourhood of the fistulous opening. The sudden gush of blood exhausted the already feeble powers of the woman, and she continued to sink, partly also perhaps in consequence of the continued internal bleeding into the cavity of the abscess, till about 3 A.M. on the morning of the 3rd of June, when she expired ; about forty-eight hours from the commencement of the hæmorrhage.

The body was examined the same day. On moving it upon the table, a large quantity of semi-fluid and extremely fetid grumous coagula escaped from the opening in the neck, and a still larger quantity was expressed from it. The ulcerated opening above described was found to communicate with a large irregular cavity filled with extremely fetid coagula. The cavity, when cleared of the clots, presented the appearance of an old abscess. The internal surface was very uneven, ragged, and flocculent, and the walls, of unequal thickness, were formed by the consolidation of the tissues immediately adjacent, and in this thickened mass were imbedded some enlarged glands, which however presented no trace of scrofulous deposit. The hollow was of great capacity, and it contained at

least a pound of coagulum. It occupied nearly the whole front of the neck below the thyroid cartilage, being bounded *posteriorly* by the trachea, which was covered with a thick deposit, and in front the walls were formed by the integuments and fascia, and the atrophied expansions of the sterno-thyroid and hyoid, and partly of the sterno-mastoid muscles. The cavity extended on the right side downwards and backwards between the right bronchus and the arteria innominata, behind the root of the right lung, (the apex of which was solidified by the compression,) to the front and right side of the bodies of two or three of the upper dorsal vertebræ, the ligamentous tissue covering which, formed, as it were, a portion of the walls of the abscess; and the bone, though not exposed, presented several small exostoses, indicating the considerable length of time the abscess must have extended to that point. Inferiorly, the main anterior cavity of the abscess reached the right side of the arch of the aorta, or rather of the ascending aorta, and for about two inches below the origin of the arteria innominata the external cellular tunic of that vessel, as well as of the greater part of the external side of the arteria innominata, was completely removed. The exposed middle coat was quite bare, and its fibrous structure clearly displayed. In the middle of the denuded portion of the aorta was a small opening or fissure about one-eighth of an inch in length, and the direction of which was oblique, as regards the direction of the vessel. Internally, the lining membrane exhibited at the corresponding point a narrow rent of the same size, the edges of which were sharp, abrupt, and ragged, as if recently torn; and on the immediately adjacent internal surface there was a very thin deposit of fibrine. Immediately within the orifice of the arteria innominata the internal surface of that vessel also presented in a slight degree a similar deposit, and upon holding the part up to the light, the wall of the arteria innominata, where contiguous to the abscess, appeared very thin and transparent, but there was no breach of its continuity. The heart and vessels, except as above, were healthy. The right bronchus presented internally, at a point corre-

sponding to the part where it was crossed by the abscess, a blackened spot and slight roughness of the mucous membrane, similar to that in the *arteria innominata*.

In the absence of more precise information upon the earlier history of the case, it would be useless to speculate upon the nature of the large abscess above described, which, as far as I can judge, appears to have originated in the lymphatic glands of the lower part of the neck and of those surrounding, especially the right bronchus. The abscess however being once formed, its peculiar situation under the immoveable sternum and clavicles would perhaps be a sufficient reason for its not closing. The case is chiefly interesting as affording an unequivocal instance of a communication being formed between the cavity of an abscess and a large arterial trunk, in consequence of an ulcerative process being set up from without, and going on to produce such a thinning of the arterial tunics, that they finally give way under the impetus of the blood. It is evident that had this communication been set up at an earlier period, and before the bursting of the abscess, it would have been very difficult, if not impossible, at that stage, to have avoided mistaking the abscess for an aneurism; for when, towards the end, the orifice was closed, and the cavity of the abscess filled with blood, such a pulsation was caused, as very strongly to simulate that presented by an aneurismal tumour.

Another point of interest appears to be the length of time the patient survived after hæmorrhage had commenced from the ascending aorta, and the comparative ease with which it was stayed by pressure.