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Original Communications.

A CASE OF MALIGNANT ŒDEMA.

By T. B. CURTIS, M.D., Boston.

A PAPER, published a few months ago by Dr. Mauvezin,* offers some new facts and considerations bearing upon the subject of *charbon* (carbuncular or anthracoid disease).† The author seeks to establish the existence in man of a particular form of this virulent affection, which is not very uncommon among herbivorous animals, and which is known to veterinary surgeons by the name of "carbuncular fever, with tumors" (*fièvre charbonneuse avec tumeurs*); to this form of *charbon*, when seen in man, he gives the name of "malignant carbuncle" (*charbon malin*). It differs from the form made known by Bourgeois, under the name of "malignant œdema," only in the order of development of the local and general symptoms; the anteriority of the former being characteristic of malignant œdema, whereas, in "malignant carbuncle," the general symptoms precede or accompany the apparition of the superficial lesions. The amount of clinical evidence to be adduced in any attempt to describe and classify the rarer forms of *charbon* appears very meagre and unsatisfactory.

Dr. Mauvezin's paper is based on three cases only, briefly reported, and unaccompanied by any record of *post-mortem* examination. One of his cases, indeed, is borrowed from Dr. Raimbert,‡ who considers it a case of malignant œdema. This latter disease is itself of rare occurrence; it is most often met with on the eyelids, as described, first, by Bourgeois,§ and by him limited to that locality; but Dr. Raimbert asserts that the disease may occupy other parts of the body, the trunk and limbs. Reported cases are, however, as Dr. Raimbert himself confesses, "rare and very incomplete." In view of this dearth of observations, I venture to offer for publication a case of which the notes

* Archives Générales de Médecine, August, 1873; translated in the American Journal of Syphilography, January, 1873.

† It is to be regretted that we possess in English no satisfactory equivalent for the French terms "charbon" and "charbonneux." The English "carbuncle" and "anthrax," and their adjectives "carbuncular" and "anthracoid," are objectionable, as their significance is equivocal, and leads to confusion between furuncular affections (furunculus and carbuncle) and malignant pustule; not only the terms, but the widely different diseases themselves, have been thus confounded, especially when furuncular disease of the face (often called "facial carbuncle") has taken on a so-called "malignant" course, through extension of facial phlebitis to intra-cranial veins and sinuses. (For examples of this confusion, see Boston Medical and Surgical Journal, vol. xlvii. p. 75.) The French terms offer no such ambiguity; *charbon* is the toxæmic disease met with in animals and in man, and transmissible by inoculation; *anthrax* is what we call carbuncle, a spontaneous, local affection, sometimes proving fatal through debilitation, as in diabetes, or through pyæmia, but possessing no *specific* virulence or "malignancy."

‡ Traité des Maladies Charbonneuses. Paris. 1859.

§ Traité de la Pustule Maligne et de l'Œdème Malin. Paris. 1861.

were taken by myself, when interne in the service of Dr. Voillemier, at the Hôtel Dieu, of Paris; the observation is, no doubt, incomplete in some important particulars (microscopic examination of the blood before death, inoculation upon sheep, &c.), but I think that it, nevertheless, contains some data which may make it a useful addition to the small stock of reported cases, for those who, at some future day, may undertake to establish the nosography of charbon, of which, with the exception of malignant pustule, so little is known positively. Without further apology for the deficiencies of my report, I subjoin a literal translation of the original notes.

CASE.—A. C., aged 24, a butcher, living in Paris, Boulevard Montparnasse, entered the Hôtel Dieu (bed 21, Salle St. Côme) on the evening of July 25, 1869, on account of a slightly painful swelling of the right axilla, accompanying a small and superficial wound, situated on the forearm. With regard to this wound, the patient, who is quite intelligent, relates that it first attracted his notice ten or twelve days ago, but he thinks that it must then have already existed several days; he does not know how, when or where it was inflicted, but he “thinks it must be a sting,” received while walking in the country near Paris (?). For two months and a half, he had ceased his occupation as a butcher. He offers no morbid antecedents, but says he is robust and healthy.

The wound, when first observed, appeared quite insignificant; but, about five days ago, the patient noticed, on the thoracic wall of the axilla, what he calls “a small gland,” which was hard, and a little painful. This lump increased in size; then, the neighboring parts becoming swelled, it could no longer be felt. He denies having been feverish, but on the morning of the 23d of July (three days ago), having got wet through by the rain, he got into bed with his clothes on, and had a shivering fit, which lasted several hours.

The next day, the 24th, he got up, and applied for admission at the Hôtel Dieu, but was not received, as he came after the out-patients' hour, and his case showed no urgent symptoms. He did not feel very ill on that day, ate as usual, and went to bed at ten o'clock, feeling somewhat fatigued.

On the 25th, he applied at the Bureau Central for a bed, and was sent to the Hôtel Dieu. In the evening, he was seen by one of my fellow house-surgeons, who reports having observed a trifling-looking wound on the middle of the front aspect of the right forearm; this wound then presented a smooth, rosy, granulating surface, slightly raised, and about as large as a peach stone in extent. The thoracic wall on the same side presented an extensive, œdematous tumefaction; no lump was perceptible, nor could fluctuation be perceived; the region was hot, red, and somewhat painful, all the local appearances being those of acute adenitis; the pulse was a little frequent, but strong; the extremities were somewhat cold. During the afternoon, the patient complained of great thirst; he had no appetite, and vomited his beverage several times; he had one normal motion of the bowels in the night. No cough, or dyspnoea.

On the ensuing morning (the 26th), at eight o'clock, I see the patient for the first time, when making the round of visits with Dr. Voillemier, in whose ward the patient was placed. The sister says that he has been very restless all night, throwing off his bed-clothes,

and complaining of heat and thirst; he was not at all delirious, and his mental faculties appeared unimpaired; he does not complain of being in any pain, but he is drowsy, and wants to be let alone. We are struck by the condition of extreme algidity which he presents, his general appearance being that of a cholera patient in the most marked algid stage; his tongue is moist, but cold and purple; except the right axillary region, which is relatively warm, the surface of the body is very cold and moist; the skin is livid, mottled and marbled with purple streaks and spots; the extremities, as well as the nose and ears, are purplish and very cold. The wound on the forearm is of a bluish tint, instead of being reddish, as yesterday; pressure on the skin leaves a white spot, which disappears very slowly. The abdomen is somewhat swollen and tense; the right upper arm is tumefied on its inner aspect; on the right side of the body, the tumefaction extends from the axilla and chest as far as the crest of the ilium. The skin covering the tumefied region is apparently in a normal condition, presenting no sign of vesicles or gangrenous patches. The pulse is now imperceptible. The urine is scanty and high colored. The patient is in a torpid state, but is easily roused, and gives quite willingly, and in a very clear way, all the information reproduced above. He suffers little or no pain, but feels fatigued, and wants to sleep; he complains, also, of thirst, and of a feeling of heat, which leads him continually to throw off his bed-clothes.

By order of Dr. Voillemier, a hot vapor-bath is immediately administered, under blankets, and hot drinks with rum are directed. The warmth of the bath is at first complained of, but after half an hour, the patient says he feels better; he, nevertheless, is sinking very rapidly; his respiration becomes accelerated, with a groan at each expiration, but without any râles being heard on auscultation; the pulse and beating of the heart are imperceptible; the pupils are enormously dilated. At 11 o'clock, he ceases to answer when spoken to; at 11.30, he expires. Immediately after death, the temperature, taken in the rectum, is 98.2°; twenty minutes later, it is 98°, and continues to fall.

Post-mortem examination made on the 28th, 46 hours after death. The body is much swollen, especially the thorax, the upper extremities and the face, the latter being quite disfigured. From the nose and mouth, black blood, with bubbles, is ceaselessly pouring. The skin of the upper half of the body has become quite black, and is covered with vesicles and bullæ, which have appeared since death. The soft parts, when incised, pour forth the same fluid, black blood with bubbles. The peritoneal cavity contains much gas. The lungs are healthy, with the exception of a certain degree of posterior hypostatic congestion, and a black or purplish color, which is presented by all the viscera. The heart is soft and flabby; the endocardium is stained black; no clots are discoverable. The blood is everywhere fluid and syrupy, of a dark purple color, almost black. The liver is congested and soft; the spleen is voluminous and soft, resembling a bag full of black putrilage. The kidneys appear unaltered to the naked eye. No trace of phlebitis in the wounded arm. In the axilla, in the depths of the œdematous cellular tissue, there is a mass as big as the fist, composed of enlarged, lymphatic glands, many of which are as large as a walnut; the glands are not indurated; they are purplish, on section,

and of a fleshy consistency. No trace of pus anywhere. The body, when opened, exhales a peculiar, indescribable smell, quite different from that which ordinarily results from *post-mortem* decomposition.

REMARKS.—If called upon to name the particular form of charbon, of which the foregoing case seems to me to be an example, I should call it a case of *malignant œdema*, so closely do all its features agree with the description of that affection given by Raimbert;* indeed, the resemblance of this case with that which is quoted from Raimbert by Mauvezin as an instance of what the latter proposes to call “malignant carbuncle” is quite striking, the only difference being that, in my case, the local symptoms appear to have slightly preceded the outbreak of general toxic phenomena. But I will not presume to attempt any discussion of the nosography of carbuncular disease, especially where such nice distinctions are to be drawn as those which separate “malignant œdema” and “malignant carbuncle.” My only object now is to add to the existing evidence a case which seems to corroborate the exactness of Raimbert’s description of malignant œdema, which description was based, by the author’s own avowal, on a very small number of imperfectly reported cases. Raimbert describes the disease as follows: “When met with on the body, carbuncular œdema generally occupies the upper and lateral parts of the thorax. It produces but slight local uneasiness or discomfort, and assumes the appearance of a soft, doughy, tremulous swelling, without any discoloration of the skin. The tumefaction is diffuse, and rapidly attains to very considerable proportions, especially when situated on the mammary region. By the second or third day after the appearance of the œdema, the general symptoms come on; they are the same as those already described (i. e., in connection with malignant pustule), only the patient generally succumbs much more rapidly than in cases of malignant pustule; the consequence is that the local symptoms do not have time to reach their full development. Sometimes, however, before death supervenes, the tumefied region, assuming a sombre, red hue, becomes the seat of more or less numerous phlyctænæ, or else it becomes of a livid color, showing the existence or the imminence of mortification of its tissues. Carbuncular disease, when situated on the limbs, has the same characteristic features, only the further it is removed from the thorax and abdomen, the slower is the development of the toxic symptoms, so that the appearance of the phlyctænæ is likely to be more common, diagnosis more easy, and treatment more effective.†”

The general symptoms, according to Raimbert, are those of the toxic period of malignant pustule, namely: at the outset, with or without rigor, some feverish symptoms, with vomiting and constipation, soon followed by a feeling of prostration; the patient becomes somnolent, and is at the same time troubled with inability to sleep; the abdomen is tympanitic; the pulse becomes feeble; the surface of the body, covered with a cold sweat, grows quite cold, and cyanotic in hue, as in the algid stage of cholera. Sometimes, the patient is tormented by a feeling of burning internal heat, with thirst; he is restless, throws off his bed-clothes, and calls for drink; the urine is scanty,

* Nouveau Dictionnaire de Médecine et de Chirurgie pratiques. Paris. 1867. Vol. vii. p. 180.

† Loc. cit p. 181.

or suppressed; the pulse grows weak and ceases to be felt. With all these phenomena of general prostration, the mental faculties are almost always unimpaired. Death ensues very rapidly.*

The *post-mortem* appearances are, mainly, the following: very speedy putrefaction, with development of gas in the peritoneum, intestines and bloodvessels. The blood is thick, fluid and black, and rapidly putrefies; in some cases, when examined during life, bacteria have been found in it; their morbid significance is, however, still equivocal. The spleen, always enlarged and much softened, is of a purplish or black color. The liver, kidneys, and, in fact, all the viscera are considerably congested, and of a dark color.†

Clinical Lecture.

ON THE EXCISION OF JOINTS.

Delivered at the Boston City Hospital.

By DAVID W. CHEEVER, M.D.

GENTLEMEN,—The wards contain, just now, a very interesting series of cases of joint disease, and the child on whom I am about to operate this morning, you have seen for the past month undergoing the treatment by rest and extension, for hip disease. At first apparently benefited, he has latterly grown thin, irritable, vigilant and febrile. A week ago, fluctuation was detected near the trochanter, and pus was evacuated. The case, then, may be said to be ripe for excision. During this winter, one case of double hip disease in a little girl has terminated in death. Another, an adult, after ten years of incessant supuration, and being riddled with sinuses all about the pelvis, into the rectum, above Poupart's ligament in the groin, and even on the opposite flank, and up over the false ribs, has finally succumbed beneath his sufferings. A third, an adult, after a spontaneous cure of hip disease in childhood, with dislocation and ankylosis, enjoyed a period of quiescence from disease for twenty-four years, when a fall lighted up again the dormant tendencies, new abscesses formed, and, after being bedridden for eighteen months, she has just undergone excision of the diseased bones, as a relief from suffering.

By the excision of joints, we mean the cutting out of diseased or broken joint-surfaces, trusting to the bone-reproducing power of nature to form a false joint, or, in the knee, a bony ankylosis. Although a modern operation, nature has long since shown us the lesson, in the false joints she forms in an ununited fracture or in an unreduced dislocation.

To Park, Moreau, White, Stromeyer, Esmarch, Larrey, and other surgeons, we owe the practical boldness to make the attempt of excision; but to Ollier, of Lyons, Sédillot, of Strasburg, and Langenbeck, of Berlin, the patient experiments and clinical researches which have taught us why and how to expect success—especially to M. Ollier, whose life-long researches on the regeneration of bone and the functions of the periosteum, in experiments on the lower animals, have demonstrated the laws which govern our results.

* Loc. cit. p. 157.

† Loc. cit. pp. 175 to 179.