

formed by the various positions of the skeleton, in the palm of the hand, wrist, elbow, sole of the foot, above the heel, in the hams and groins, are felt muscular, or tendinous cords, elevated and stretched. The rigidity is apparent, especially at the wrist, in the tendons of the *palmaris longus*, and *pulmaris brevis* muscles, the *flexor profundus*, and *flexor sublimis*, and the cubitalis anterior; at the elbow, in the insertion of the *brachialis anticus*, and at the biceps; above the heel, in the tendon of *Achilles*, in the popliteal region, in the tendons of the semi-tendinosus and semi-membranosus, and of the biceps; at the groin, in the insertion of the *gracilis*, of the *rectus*, and of the aponeurotic tensor. All of these muscles offer a manifest resistance to attempts at straightening them. The elevation and rigidity of the tendons upon the dorsal face of the radi-carpal articulation, and upon the instep, caused M. Tasquinet, the author of one of the reports, to suppose that the extensor of the fingers and toes participated in the state of contraction.

The limbs, thus flexed, offer to the touch a general and deep-seated hardness, which appears to invade, in different degrees, the whole of the muscular mass, being more distinct upon the fore-arm than elsewhere.

Sometimes the contraction is neither preceded nor attended with pain; nor do the efforts of extension occasion any. With some patients, this forced distention of the contracted muscles produces even an agreeable sensation. At other times, this contraction announces itself at once, by violent cramps extending from the elbow to the extremities of the fingers, and from the knees to the toes; and, if the attempt is made to bring the members to their normal position, the most violent pain results.

The contraction of the limbs is, as we have just said, permanent; but it does not always limit itself to these parts. There are cases where the thoracic and abdominal muscles, those of the neck and of the face, become hard and stretched. A considerable oppression, and a sense of contraction at the base of the thorax, have at times led to the belief of a contraction of the diaphragm. With certain patients, the tongue, next after the limbs, receives the stroke. With others, finally, a general tetanic state has been observed.

To judge from all of the reports, the contraction is generally fixed and permanent. It persists during many days, many weeks, many months, and then gradually subsides. But sometimes, it assumes a remittent, or an intermittent, form. Thus, it is seen to diminish, at times in the morning, then in the evening; or, truly, only to make its appearance by attacks, very manifest, distinctly marked, lasting from a few moments to several hours, and even for a greater part of the day. Ordinarily, these attacks supervene at night and towards morning, lasting till near noon, and disappearing for the rest of the day. M. Mareska observed two cases of true periodic contraction treated with success, with the sulphate of quinine.

As we said above, the contraction assumed, sometimes, a spasmodic form. Then, instead of a permanent flexion of the limbs, a hardness and permanent tension of the muscles, there are violent convulsive contractions, transient, with or without pain, and returning by attacks at greater or less intervals, or simple starting, such as sometimes takes place in disturbed sleep. This form, noted by M. Tasquinet, is encountered only with a few patients.

The symptoms, just specified, are invariable: they form the particular character of the epidemic, and constitute, thus, to speak, its individuality. But there are others, although accessory, which cannot, nevertheless, be abstracted from the picture without a serious alteration of its physiological expression. Thus, some patients are affected with general or partial oedema, and ascites; others complain of *rachialgia*. With many, cyanosis of the extremities has been observed. With two, only, spontaneous gangrene:

one of these two patients lost the skin of the scrotum, and the other almost the whole of that of the left foot and leg.

As to the general state of the patient, apart from considerable weakness, there is nothing particular. The pulse and temperature remain in their natural state, and the principal functions are regularly performed. Still, this is not always the case: with certain subjects, the temperature is lowered, and the pulse sinks to fifty, and even forty pulsations; with others, on the contrary, either by the direct effect of the disease, or under the influence of the pain, or from some visceral complication, fever is established. The patients often complain of an intense headache. With others, finally, there is a loss of appetite, nausea, vomiting, colic, constipation or diarrhoea, either serous or sanguineous. M. Mareska has determined that the fibrine of the blood was not augmented. A member of the Academy, M. Craninx, has even affirmed, in the discussion which followed the communication of M. Vleming, that the blood lost its fibrine; but it does not appear that chemical experiments support this assertion.

The disease presents in general, thus far, nothing serious. It almost always ends in cure, and relapses are rare. Yet there are many instances of fatal termination. In some cases, death supervened suddenly, under the forcible contraction, doubtless, of the respiratory muscles, and perhaps also, according to the judicious remarks of M. Torquinet, from a contraction of the heart; in others, death came on slowly, after some days of fever; and there is room to suppose notwithstanding the insufficiency of the reports on this point, that it was the result of consecutive organic alterations. With some patients, the affected limbs remain paralyzed.

Few autopsies have been made. The only indication that we find on this subject, in the documents we can consult, is yet another assertion of M. Craninx before the Academy:—"The liver and spleen have been found diseased: all the viscera of the economy were more or less altered." But the greater part of the other members do not appear to attach the least importance to these post-mortem examinations.

It is the same with the therapeutical results. M. Staquez, practising at the prison of St Bernard, where typhoid fever is endemic, and meeting in the new affection only a peculiar manifestation of the habitual morbid constitution, has had recourse to saline purgatives. M. Mareska, practising at Gand, and free from this pre-conception, has employed cold baths, ligature of the limbs, amica, camphor, opium, sulphate of quinine, and had recourse to purgatives but as secondary means. But it cannot be said, if one is to judge from the debates on this subject, before the Belgian Academy, that any method of treatment has had any marked influence upon the duration or termination of the disease.

To complete our sketch, it only remains to point out certain differences, according to the locality. It is at the prison of St Bernard, thus far, that it has been most serious. It is there that it is sometimes accompanied with fever; that the contraction exists for weeks and months; that it is complicated with cyanosis, or gangrene of the extremities; that it terminates often in death. In the prison of Gand and Namur, the affection, although more painful, takes the intermittent form, rarely lasting more than eight days, and never ending fatally. "This difference, does it not depend," said M. Vleming, to the Academy, "upon the fact that the original cause of the disease, whatever it may be, has found in this prison a more ready prey, a ground better disposed, men more deteriorated, upon whose constitutions the whole of the causes which there reign, and which render the prison the most detestable of the country, had already made deep inroads?" Some cases have been observed at the Hospital St Pierre, at Bruxelles, and in the city by M. Seutin; in the lunatic asylum at Gand, and even at St Bernard, without the prison, by different practitioners. In all these cases, the contraction took the permanent form.