

took at least twenty or thirty minutes to carry out—the patient being, of course, obliged to be put under the influence of chloroform.

In 1881 I had established the following rule: "Exceptional intervention only in grave and well-marked cases; but applied with energy." I varied my *modus operandi*, however, according to circumstances; and instead of using both the cautery knife and the cautery point, I used only the latter.

Such was my practice when, in 1883, I saw a very grave case of carbuncle situated at the posterior region of the neck, in a man of strong constitution, who was suffering from well-pronounced diabetes. The carbuncle was opened at its center, and was progressing rapidly, notwithstanding numerous incisions had been made with the cautery, and the wound had a very bad color. On my first visit I decided that additional openings would be required, and that I would make them the next day. In the meanwhile I ordered the wound to be twice sprayed for one hour with two per cent. solution of carbolic acid. On the next day the wound had no odor, and considerable diminution of the redness and swelling had taken place. I then resolved to try this method further.

Since then I have used the sprays exclusively against all carbuncles—small, medium or large; diabetic or not; painful or painless; still closed, or opened naturally, or by artificial means. This very simple mode of treatment I found superior to all others, in stopping the sufferings soon and in rapidly limiting the extension of the disease.

Amongst the cases I have treated, I may cite that of a young professor of the Paris Faculty of Medicine, who died lately of diabetes complicated with albuminuria. He had a very large furuncle or boil, on his left cheek, with diffuse and deep extension and considerable surrounding œdema. The prognosis was grave, not only on account of the seat of the trouble, but also on account of the presence of sugar, 3.5 per cent. Cardiac and pulmonary lesions rendered the administration of chloroform dangerous. I resorted to the carbolized spray. After the first application the œdema disappeared, the pain diminished and disappeared entirely in forty-eight hours; and after seven or eight days, in six of which the spray was used four times, the large furuncle was reduced to a medium-sized ecthyma pustule; and it was entirely healed by the seventeenth day.

Of course this treatment will not prevent accidents, which may occur when the carbuncle has given rise to an extensive sphacelus in extremely cachetic patients. But in the majority of cases, if taken early, we have in the spray an abortive treatment for carbuncle.

The manner of using the carbolized spray is known to every surgeon. A convenient apparatus is the atomizer, which is heated by alcohol, and which will work for twenty-five minutes. Such a one is sufficient for small or medium-sized carbuncles, and for those which are already opened. For

the large tumors, where the skin is not broken, it is better to use a more powerful apparatus, which gives off a more abundant vapor and has a more considerable force of penetration. The apparatus is placed from one to two feet from the skin, regulating the spray according to the sensation of the patient. I generally place nothing between the carbolized vapor and the wound, or I place there only a single thickness of transparent gauze. Up to this date I have used only the two per cent. solution of carbolic acid. I have not tried other antiseptic solutions, being contented with the results obtained with carbolic acid, which, in my experience, has never irritated the skin nor produced any symptoms of general disturbance. The number of applications of the spray is variable. Usually three or four sittings of half an hour each, every day, are quite sufficient. Between the times of spraying, an antiseptic, carbolic dressing should be applied to the lesion. The patient might find so much relief from the spraying that the sittings could be made much more numerous—six or eight a day. The following precautions must be taken:

1. Carefully protect the normal parts surrounding the carbuncle with compresses, rolled napkins, perforated cushions, or pieces of adhesive plaster perforated at the centre, according to the region which is occupied by the lesion; at the same time protecting the patient's linen and bed-clothes from becoming wet.

2. Place the patient in an easy position, so that he shall not be tired by the spraying. When the boil or carbuncle is at the back of the neck, or on the back, the patient should be seated on a chair, so that he can rest his folded arms on the back of the chair. When the disease is situated in the perineum, or near the anus, the lithotomy position is the best; and when it is in the lateral, lumbar or gluteal regions, the patient should lie on the side with the lower limbs flexed.

The treatment by the carbolized spray is not only very simple, but also adapted to all forms or phases of the disease, being the same from the first to the last. When used at the beginning for a small carbuncle or boil, it has a good chance of aborting it entirely. Later, when the swelling is voluminous or has a tendency to increase, it will stop its progress. Later still, when mortification and perforations of the skin have begun, it limits the sphacelus, helps to the separation of the mortified tissues, disinfects the wound, keeps it clean, and by so doing reduces the temperature and symptoms of general disturbance. Its advantages are increased by the fact that its application does not demand the use of chloroform, and that there is no need to touch the tumor, or irritate it in any way. I have said, and I repeat, that the old method of incision with the lancet was far from being innocent, that these incisions produced in enfeebled patients severe hemorrhages, which were difficult to arrest, and which necessitated the use of painful hemostatics; and that they were capable of developing septicæmia, of propagating gangrene, and of favoring the absorption of putrid matter.