

Carrel does not permit the use of ether, hydrogen peroxide, alcohol, &c., in the dressing of wounds: nothing but irrigation with the Dakin solution, and washing with oleate of soda. Besides these, he always uses an anti-septic unguent free from fat. As the formula of this is not fully established, it has not yet been made public.

(7) The dressings are renewed once or twice a day. These are simply compresses of thin gauze, above which is placed a pad of cotton wool wrapped in gauze. The vaseline compresses may be left in place for two days.

(8) A check on the bacteriological condition is established from the first day. For this purpose a scraping from the wound on a glass film is sent to the laboratory.

(9) In the case of shallow wounds, at the end of twenty-four hours there is a notable diminution of the number of microbes, and four days later they have usually completely disappeared. In the case of deep hollow wounds, sterilisation is effected between the 6th and the 25th day.

When this desired result is obtained, the wound is either sutured or the flat dressings continued, according to circumstances.

(10) If the conditions are favourable, the wound is closed directly the sterilisation is complete, that is to say, usually on the 7th or 8th day, either by a suture of "crin de Florence," after simple trimming of the edges, or by means of adhesive plaster. The latter is not previously sterilised, but it is of very good quality, and is considered to be aseptic. It is placed perpendicularly or parallel to the edges of the wound. In the latter case a strip of plaster of appropriate size, provided with "button hooks," is placed on either side of the wound, and the "hooks" are brought together by means of a thread of silk. They are, of course, placed in position aseptically. Usually the suturing takes place on the 8th day in the case of simple wounds.

If a bony hollow persists after asepsis of the wound is complete, the bone is often filled by Mosetig's process. Sometimes the wound is left open and the filling eliminates itself gradually. This process is particularly useful in obtaining asepsis within the bone. In favourable cases the skin is sutured and the filling remains in the bone. In some cases Bech's paste is used to keep fistulous tracts in an aseptic condition, but these methods did not absolutely convince me. I saw a wound of the foot which had been filled after sterilisation. The filling had gradually been eliminated, and the foot had healed.

(11) If the edges of the wound cannot be

joined, an autoplasmic operation is carried out, or the flat treatment of the wound is continued as described above. In this case the Carrel tube is placed flat on the wound, with a compress below, or directly on the wound, which is surrounded with vaseline compresses.

(12) From the point of view of surgical intervention, they rightly consider at Compiègne that there are three periods:—

(1) The period immediately after the wound has been inflicted. The right moment for operation.

(2) The transition period towards the fourth day. Asepsis of the wound is not yet assured, and chronic infection may set in. Intervention at this period is to be avoided as far as possible.

(3) Period of chronic infection: intervention must now take place if necessary.

(13) *The preparation of Dakin's liquid.*—The quality of the liquid is most important. It must be absolutely neutral, and is prepared daily at Compiègne according to the following formula:

*Preparation of the hydro-chlorous solution in Dr. Carrel's Ambulance.*

(1) In order to prepare 10 litres of solution, weigh accurately:—

(a) Chloride of lime, 200 grammes; dry carbonate of soda (Solway's carbonate), 100 grammes; bicarbonate of soda, 80 grammes.

(b) Place in a 12-litre flask the 200 grammes of chloride and 5 litres of plain water, shake several times, and leave all night.

(c) Dissolve the carbonate and bicarbonate in 5 litres of cold water.

(d) Pour the soda solution rapidly into the flask containing the chloride, shake well, and then allow time for the calcium carbonate (chalk) to settle.

(e) After half an hour, syphon off the clear liquid and filter through paper in order to obtain a perfectly clean liquid, which must be kept screened from the light.

(f) The preparation of the neutral "oleate of soda" is carried out in the ordinary manner with oleic acid.

(g) The examination for, and staining of, microbes is carried out from the scraping from the wound, as mentioned above. The staining is done with carbolised thiomine, contact of a minute or a minute and a half is sufficient, after which the slide is washed, dried, and examined.

(h) Study of the curve of cicatrisation. This is only necessary in the case of surface

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