

LOCAL ANÆSTHETICS.

Most nurses during their training have prepared a patient for operation in which a local anæsthetic is used; we have several varieties, and their methods of administration differ slightly.

We know that when a general anæsthetic is administered the agent used interferes mysteriously with the nerve functions of the body and renders it entirely insensible to pain, due to the agent getting into the general blood stream by means of inhalation.

A local anæsthetic when employed only renders the part where it is applied insensitive to pain, but one must guard against any toxic symptoms which may afterwards develop due to an overdose. When preparing syringes and needles for the purpose of administering local anæsthetics one must be quite sure they are rendered surgically clean; if they should be boiled never put any soda into the water, the chemical action counteracting the effect of the solution going to be used. After use they should be washed with cold water before being boiled again, and after boiling syringe through with a little methylated spirit, to make sure the needles are not blocked.

The skin of the patient also requires preparation, in order to render it surgically clean, and the site of injection painted over with a solution of iodine.

For delicate operations upon the mucous membrane of the nose or throat a hydrochlorate solution of cocain 2 per cent. is often used, and it may fall to the nurse to render the part anæsthetised; if it is a throat case, have the patient in a good light, with the mouth as far open as possible, using a spatula if necessary; paint around the inflamed area very gently with the solution twenty minutes before, and again immediately before the operation. A fine camel-hair brush may be used for the purpose, or a small swab on the end of a pair of Spencer Wells' artery forceps.

If painting the mucous membrane of the nose, angular forceps will be found most convenient to use.

Cocain is also employed for delicate operations upon the eye, a 10 per cent. solution most commonly being used. A few drops are placed in the inner corner of the eye whilst the patient's head is held back and the lids kept open.

For minor operations upon the ear, such as paracentesis, a $2\frac{1}{2}$ per cent. or 5 per cent. solution of cocain is often employed; a few drops

placed in the ear whilst the patient lies quietly on his side; the drops are allowed to remain in for ten or fifteen minutes, and removed just before the operation.

Beta-eucaine is a similar preparation to cocain, having less toxic effects upon the system.

Eudrinine is also another preparation, but it contains a specified amount of the extract of adrenalin, which is obtained from the supra-renal capsule; this latter substance has the power of contracting the blood vessels of the part, preventing the cocain from getting into the general blood stream.

A dental syringe is used for the injection, and it must be injected along the skin, and not under, thus coming in contact with the nerves which lie near the surface.

Another and most common form of local anæsthetic used is ethyl-chloride, which freezes and renders the part insensible to pain, but the return of sensation is nearly always very painful. It is supplied in glass tubes with a spring top; the top is raised by means of a lever when required for use, and a stream of the solution will flow on the necessary part to be anæsthetised. A quicker result is obtained if it is held a little distance away from the part, the flow then being more powerful.

One may inject an anæsthetic directly into a nerve, beta-eucaine being one of the most common neural methods: the ulna nerve being used to render the outer side of the ring finger and the little finger insensitive.

It is impossible to anæsthetise some nerves, such as the nerves of respiration. When a spinal anæsthetic is employed, the position of the patient is of very great importance: the head and the shoulders must be so arranged as to be the highest part of the body by means of three or four firm pillows, to prevent the fluid from flowing upwards after it has been injected; should it flow up as far as the cervical vertebræ, the nerves arising from this part of the body would be interfered with, those of respiration being the most important, and the result in all probability would be fatal.

Stovain is the agent used for this purpose, and the injection is given by the surgeon from a quarter to half an hour previous to the operation. After the site of injection is located (which is usually a little above the middle of a straight line across the back of the body, from the crest of the ileum), it is painted over with iodine once or twice, and one must take extra care as regards the preparation of the needle and syringe to prevent any toxic symptoms which might give rise to meningitis.

[previous page](#)

[next page](#)