

## Abstracts.

### NOSE, Etc.

#### THE SUBCUTANEOUS AND SUBMUCOUS INJECTION OF PARAFFIN.

**Comstock, A. E.**—*Some Experiments with Paraffin.* "Medical Record," November 1, 1902.

The author undertook a series of experiments in order to ascertain what became of paraffin after its subcutaneous injection into the tissues of animals. After varying intervals, sections were made and carefully examined. In all the cases a certain amount of shrinkage was noticed as the mass hardened and organized, in all probability due to the small amount of oil which is in the paraffin becoming absorbed. The result of this shrinkage is to cause the formation of minute openings, into which the surrounding tissue-cells make their first entrance. Gradually fibroblasts will be found to permeate the paraffin, connective tissue then develops, and finally the whole paraffin mass becomes permeated by and encapsuled in a fibrous tissue bed. In order to prevent emboli forming, the paraffin used must at all times have a melting-point above the normal bodily temperature.

W. Milligan.

**Downie, Walker.**—*The Removal of Deformities of the Nose by the Subcutaneous Injection of Paraffin.* "British Medical Journal," November 8, 1902.

Thorough preparation of the operation area should be made by cleansing the skin of the nose, the forehead, and the cheeks, twelve hours before the injection, with spirits of turpentine, followed by rectified spirits of wine and 1 in 40 carbolic solution. A carbolic dressing should also be worn over-night. Immediately prior to operation these same parts should be well washed with 1 in 20 carbolic solution. About a quarter of an hour before the operation a band of celloidin is painted across the nose at the level of the eyes, and is continued downwards along the line of junction between the nose and side of the cheek. The celloidin, when it sets, by its pressure tends to prevent the paraffin from spreading into the surrounding subcutaneous tissues.

The author uses a paraffin with a melting-point of from 104° F. to 108° F. The syringe employed is a 10 c.c. glass serum syringe. The patient may or may not be anæsthetized. In order to keep the needle warm and to prevent the paraffin solidifying in it the proximal half of the needle, including its collar, is bound round with cotton thread for purposes of insulation. A piece of fine platinum wire is bound round the needle and its collar and over the thread, each end of the platinum wire being soldered to a separate copper wire. The two copper wires are fixed to the terminals of a storage battery (with a rheostat). The platinum wire can now be heated as desired, and in this way the needle kept warm. Too much paraffin should not be injected. Before the needle is withdrawn, a piece of gauze, soaked in cold sterilized water, is applied over the nose, so causing the paraffin, which by this time has been moulded into position, to set immediately.

The causes of failure are set down by the author as follows:

1. Insufficient antiseptic precautions.
2. Want of suitable apparatus.

3. Injection of an excessive quantity of paraffin.
4. Insufficient digital pressure around the nose whilst the paraffin is being injected. W. Milligan.

**Paget, Stephen.**—*The Use of Paraffin for restoring the Bridge of the Nose.* "British Medical Journal," September 13, 1902.

Two cases are recorded. The first occurred in a student whose nose had been broken when seven years old. The whole of the middle portion of the nose was sunken, the lower portion broad and ill-shaped, the nostrils circular and looking rather forwards. The second case was that of a man, aged thirty, suffering from laryngeal phthisis, with a sunken nose, probably of syphilitic origin. In both cases a good result followed. The author recommends the following considerations as worthy of attention :

1. Whatever may be the melting-point of the paraffin, it must be kept, during use, 10° or 15° higher, or it will solidify in the needle before it can be injected.

2. For the same reason, the needle and syringe must be kept 15° or 20° higher than the paraffin. The loss of heat from the syringe may be to some extent checked by casing it in a bit of drainage-tube.

3. An ordinary glass antitoxin syringe, with a well-fitting asbestos piston, answers every purpose. The needle must be broad and strong, such as is used for exploring the pleural cavity ; but the needle generally used for this purpose is too long, and should be shortened to one inch and a half.

4. An assistant must make firm pressure, very carefully, all round the nose, and must keep up this pressure till the paraffin is set. But it sets almost at once, allowing only a quarter or half a minute to the surgeon to mould it. The firm pressure may be helped by the use of a strip of lead or pewter under the tips of the fingers.

5. The skin of the nose, at the point where the needle is to enter, should be just nicked with a scalpel, so that the needle may pass easily. It is best to direct the needle downward, away from the eyelids, and to introduce it at the middle line of the nose.

6. Eckstein's paraffin, melting at 136°, is difficult to use, and must be very quickly transferred from the bottle into the subcutaneous tissue. Probably it is best suited for a case where only a very small quantity of paraffin is required. With this paraffin the syringe must be kept so hot that it can hardly be handled except with gloves.

7. One case has been recorded of sloughing of the skin, presumably from heat. This disaster could hardly happen with paraffin melting at 115°. More than one case has been recorded where signs attributable to pulmonary embolism followed the injection. It is therefore necessary to avoid piercing a vein, and to keep firm and close pressure all round the nose during and after the injection.

8. After the treatment, a fold of lint should be kept over the upper part of the face, and kept moist with cold or iced lotion. In the two cases quoted there was little or no pain after the operation, but some swelling round the nose for three or four days. W. Milligan.

**Foster, Hal.**—*The Subcutaneous Use of Paraffin in Deformed Noses, with the Report of a Case.* "Med. Record," October 11, 1902.

The nasal deformity was the result of inherited syphilis. A few drops of cocaine solution were first of all injected into the subcutaneous tissues of the nose. About a teaspoonful of paraffin was injected with

a Gersuny syringe. Ice was applied locally immediately after the injection. The result was quite satisfactory. *W. Milligan.*

**Brindel, A.**—*Treatment of Atrophic Rhinitis by Interstitial Injections of Paraffin.* "Revue Hebdom. de Laryngol.," November 25, 1902.

The underlying idea is by the injection of paraffin to build up the atrophied turbinated bodies so as to enable the thick tenacious secretion to be more readily expelled when blowing the nose.

The writer mentions ten cases so treated, and claims a practical cure in each case.

Two to three cubic centimetres of Eckstein's paraffin were injected under the mucosa of the inferior turbinated bodies by means of a large hypodermic syringe. *W. Milligan.*

**Perry, G. Goldsmith.**—*The Management of the Various Forms of Nasal Obstruction.* "Canada Lancet," July and August, 1902.

This is a clear and comprehensive article upon the above subject written for the general practitioner. Goldsmith divides the subject into three divisions: (1) Obstruction in the vestibule; (2) obstruction between the vestibule and the posterior nares; (3) obstruction due to causes situated in the naso-pharynx.

In his first division he enters a little more concisely into particulars than is usually the case with writers. The division he makes is the following: (a) Congenital smallness of the anterior nares; (b) collapse of the *alæ nasi* and constriction of the lumen vestibuli; (c) septal irregularities in the vestibule. Of the last named he gives no less than five varieties! The treatment of all cases of vestibular obstruction he divides into palliative and surgical. Palliative is required in cases of collapse or contraction, and consists of wearing tubes, celluloid rings, etc., in the anterior nares. Surgical treatment is needed in distortion, enlargement, or dislocation of the cartilages, and consists in slitting the mucous membrane, retracting it, and then removing the protruding mass by scissors or bistoury; the membrane is next slipped back over the cut surface, healing taking place without the use of sutures. This may apply to the columnar, and also to the, anterior end of the triangular cartilage.

In his second division there is nothing new. The writer considers the sharp spoke-shave an admirable instrument for the removal of ridges and cartilaginous spurs. He justly condemns the too frequent use of the galvano-cautery upon a thickened septum, while he favours the judicious use of the nasal saw in selected cases. In turbinal hypertrophy, the submucous division of the tissues by a tenotomy knife or galvano-cautery point is favourably spoken of. Although turbinal hypertrophy in juvenile life is rare, the abstractor cannot go as far as the writer when he says: "We cannot have hypertrophy before development, and the turbinal bodies are not developed until puberty."

In the third division the importance of removal of adenoids is duly considered. Golding Bird's curette and Jakins-Juras' forceps are the favoured instruments. The objection Goldsmith makes to many curettes sold as Gottstein's is a very just one. As usually constructed, they will rarely sweep the whole of the naso-pharyngeal wall, the blade of the instrument being placed at too sharp an angle to the body of the ring. *Price-Brown.*