and the diagnosis of hydatidiform mole was thus easily made. Under ether anaesthesia a large hydatidiform mole and a foetus of about three months were evacuated; a hot flavine douche and pituitrin were administered. Recovery was uneventful.

The presence of a foetus is quite exceptional, and is evidence that the chorion must have functioned well for several weeks before abnormal epithelial proliferation began. The mole itself was large, but *all the vesicles composing it were minute*. It is usual in such cases for the vesicles to vary in size from a few millimetres to one or two centimetres in diameter, and I interpreted this as indicating great epithelial activity. I do not know if this signifies a greater liability to the development of chorionic carcinoma, but I suspected that it did, as there was so much evidence of growth and division. I urged the patient to submit to hysterectomy, although I had previously seen several cases of hydatidiform mole and had not considered that any of them required this method of treatment. The patient refused hysterectomy and even curettage, and went home on April 16th. I warned her and her doctor of the possible sequel, and asked that she might at once be sent into hospital if any bleeding recurred.

The patient was readmitted to hospital on May 13th at 3 p.m., with the following notes from her doctor: "She remained well until April 27th, when she had haemorrhage, which persisted fairly freely for twenty-four hours and ceased entirely in a week. Haemorrhage recurred at 3 a.m. to-day, and was considerable. The uterus was definitely distended with clots, which could be manually expressed." When I saw her soon after admission she was blanched and collapsed; the pulse was 144, temperature 96.2°, but haemorrhage had ceased. The foot of the bed was raised on 18-inch blocks, warmth was supplied, and saline and glucose administered per rectum, this method being chosen as less likely to restart bleeding. The uterus was palpably enlarged, the cervix and vagina were healthy, and no other swelling was felt.

HYSTERECTOMY

I was so strongly of opinion that the bleeding came from a chorionic carcinoma and not retained products that I decided not to risk further haemorrhage or dissemination by exploring the cavity, but to perform hysterectomy as soon as her condition permitted. A blood count the following day showed red cells 1,970,000 per c.mm. and haemoglobin 30 per cent. I gave a blood transfusion of twenty-five ounces with marked improvement, but the following day she was still unfit to undergo an operation, so I gave a second blood transfusion of sixteen ounces. On May 17th the pulse was down to 72, and her condition was quite good.

Under a general anaesthetic the vagina was swabbed out with violet-green and the cervix closed with a mattress suture. The abdomen was opened by a sub-umbilical incision. The uterus was about the size of an eight weeks' pregnancy; there was no sign of growth on its peritoneal surface, or invading the broad ligaments or glands, nor were there any metastases in the abdomen. I performed an ordinary panhysterectomy, including the Fallopian tubes. Although it is usually recommended to remove the tubes and ovaries with the uterus in this condition I retained the ovaries because chorionic carcinoma differs from other types of carcinoma in the absence of spread by lymphatic permeation¹; also this was an early growth in a young subject and I believed these ovaries were safe, and the advantages of preserving them were considerable. Recovery was uneventful, and the patient was very well when discharged to a convalescent home on the fifteenth day.

The Specimen.—The uterus contained a soft, dark-red growth, ovoid in shape, measuring 3 cm. by 1.8 cm. by 1.4 cm., and arising in the posterior wall of the body; its lowest point was 1 cm. above the internal os. It

protruded into the uterine cavity, and was in part covered with mucous membrane; at its centre it invaded the uterine wall for half its thickness. No vesicles of the preceding mole were present.

The microscopical report by Dr. Eric H. Shaw was as follows. "Section of the uterus shows the structure of a chorionic carcinoma. The muscle wall is infiltrated with large cells from Langhans's layer. There are some small syncytial masses, and there appears to be one formed chorionic villus. There is a large amount of blood among the cell masses."

The patient is perfectly well and free from all signs of recurrence now, five years after the operation, and has gained slightly in weight.

COMMENTARY

Interesting features of this case are:

1. All the vesicles of the preceding hydatidiform mole were minute; this indicated great epithelial activity and suggested malignancy.

2. Severe and almost fatal haemorrhage, necessitating two blood transfusions, occurred in an early and operable stage of the growth.

3. The preservation of both ovaries when panhysterectomy was performed, though it is not suggested that this conservatism would always be justifiable.

As regards operative technique, I would emphasize the necessity of first closing the cervix with a mattress suture, so as to eliminate the risk of implanting cancer cells in the pelvic tissues during the removal of the uterus. The vessels and broad ligaments should be doubly clamped before any traction or manipulation of the uterus is permitted, or minute fragments of this soft growth may be disseminated through the veins.

REFERENCE

¹ Teacher, J. H.: "Chorion Epithelioma," Eden and Lockyer's *New System of Gynaecology*.

TREATMENT OF THE SEVERER CASES OF FRACTURED NASAL BONES

BY

A. B. K. WATKINS, M.S., F.R.C.S.

HONORARY EAR, NOSE, AND THROAT SURGEON TO NEWCASTLE GENERAL
AND WALLSEND DISTRICT HOSPITALS, N.S.W.; AND CRANIO-
CERVICAL SURGEON TO MATER MISERICORDIAE
HOSPITAL, N.S.W.

By far the majority of fractured nasal bones are associated with rotation of the separated portions around a more or less vertical axis. There is usually not a very great tendency for the bridge to collapse. In the severer cases, however, where the bones are comminuted, the bridge often collapses, and means of treatment which would have been satisfactory in the milder cases would be unsuitable. In either case the importance of starting treatment early cannot be overestimated, and the day the injury is received is not too early to begin it.

The principles involved are: (1) to mobilize the parts so that they can be kept in the correct position without tension; and (2) to retain the parts in the corrected position until there is no tendency for the deformity to recur. These principles are comparatively easily satisfied where treatment has commenced early, but where more than a day or two has passed the difficulties increase rapidly. Mobilization is already present in recent cases, but where it is not it must be obtained by gripping the fragments with special forceps—one blade being in, and the other outside, the nasal fossa—and with it moving the fragments until they can easily be placed in any position required. When bony union has occurred, however, means of dealing with the deformity other than that to be described must be used. Fixation can be

obtained by a number of methods, but one is so suitable for nearly all cases (including those of external compound fracture) that it will be described to the exclusion of less generally suitable methods.

TECHNIQUE

The method is based on a splint described by Carter, which forms an arch over the nose. The base of the arch presses on the cheek on each side at its junction with the side of the nose. The apex is situated in the air over the bridge. A short straight splint is inserted into each nostril, and a thread from the middle of each splint perforates the soft tissues near the inferior border of the nasal bones, and is tied to the arched splint near its apex. The splints now exert anterior traction on the bridge, whilst an adjustable screw enables one to alter the angle between the two sides of the arch, so that the posterior borders of the nasal bones can also be pressed towards the mid-line. Although stressed in connexion with the original splint, this point is not necessary or desirable for its satisfactory use. Though the principle of Carter's splint has much to commend it, the risks of infection, and of scarring due to the perforation of the soft tissues of the nose with the threads, prohibit its use.

I first modified the splint by substituting U-shaped metal splints for Carter's straight intranasal splints, one limb of the splint being inserted so that when traction is taken from the part of the limb outside the nose opposite the middle of the nasal bone, the effect is the same as if short intranasal splints were used and traction were taken from the middle of them (see Fig. 1).

FIG. 1.

FIG. 2.

In order that the splint should not work in further or work out when tension was applied, it was found essential that such tension should be applied exactly at right angles to the axis of the nasal bone. This is obtained by adding a mast, the effective length of which can be varied, from the forehead to the apex of the splint. Grooves are cut on the mast, and a silk thread from each U-splint is tied to its fellow of the opposite side over the correct groove in the mast, in such a way that the direction of the pull is at right angles to the nasal bones. The bases of the splint are fitted with thick rubber tubing, and are only used for counter-pressure on the face. Where wounds are present they are avoided by adjusting the distance between these rubbers with a milled screw (see Figs. 2 and 3). If, during treatment, the silk threads need only slightly tightening, this is effected by adjusting the screw to narrow the angle between the two sides of the splint. The forehead piece of the splint is padded with a flat piece of rubber, and kept in place with a band of adhesive strapping round the head. This has less tendency to cause headache than firm bandaging. During treatment nasal respiration is possible.

The splint is left in about four days, though at any time it can be removed (all except the mast) for dressing of wounds, use of douches, etc., and can readily be reapplied. Adjustments can be slackened after this period, and one watches for any recurrence of deformity.

FIG. 3.

If none occurs the splint is removed; otherwise it is replaced. The length of treatment depends entirely on the tendency to recurrence, which is estimated as above. Treatment varies from a few days up to about three weeks.

In describing this splint I wish to acknowledge the trouble taken by Messrs. Mayer and Phelps (59, New Cavendish Street, W.1) in order to make the final splint from my experimental patterns.

Memoranda

MEDICAL, SURGICAL, OBSTETRICAL

TREATMENT OF TROPICAL PHAGEDAENIC ULCER

I have used the following treatment for the last two years on over 2,000 cases of tropical ulcer, and the results have been so satisfactory that I should like others to give it a trial. It is now the standard treatment for all cases which occur in my group of tea-gardens, and it has also been tried for the last year on adjacent gardens, with equally satisfactory results. It consists in the thorough swabbing of the ulcer, if possible twice daily, with a copper sulphate carbolic acid solution, followed by dusting with an iodoform bismuth subgallate powder. This is continued until the ulcer has healed.

In making up the solution it is essential that the copper sulphate be completely dissolved in distilled water, leaving no deposit; this can only be achieved in a mortar. The carbolic acid is then added, the composition of the solution being copper sulphate 5ij, distilled water 3j, and carbolic acid 3j. As the carbolic acid rises to the top of the solution the latter must be shaken before use on each case. The purpose of the carbolic acid is to deaden the pain of the copper sulphate and allow thorough swabbing of the ulcer and removal of slough. After swabbing, the following powder should be applied and the ulcer covered with a piece of lint and a bandage: iodoform, 1 part; bismuth subgallate, 3 parts.

With this treatment the pain and slough of an ulcer disappear in about four days, and an ulcer of average size heals up in about two weeks. This compares very favourably with the two to three months previously required for the cure of such cases. Moreover, the treatment has the advantage of being practically painless. The swabbing of the ulcer with the copper sulphate solution must not be stopped after the slough has been removed, but should be continued until the ulcer has