the injection of one ounce of glycerin of pepsin* (full strength); the catheter is closed and left so for half an hour. When the spigot is removed the blood-stained fluid usually flows out, and any remaining clots can be withdrawn by suction with an efficient bladder syringe. The type of syringe is important; it should have a properly fitting plunger and a glass barrel. The Genito-Urinary Manufacturing Company have copied for me a French pattern, which is illustrated in Fig 2. The piston is made of virgin silver and the barrel of pyrex glass, and with this syringe it is possible to apply very strong suction and to see its results in the shape of pieces of clot mixed with the withdrawn fluid. A cheaper model with a fixed nozzle is made for ward use as a routine bladder syringe, and is equally effective. It is sometimes necessary to repeat the injection of pepsin, but once the bladder is empty the bleeding can usually be controlled by hot irrigations and the administration of morphine and haemoplastin.

* Glycerin of pepsin, 1914 B.P., contains 10 per cent. of pepsin and 1.15 per cent. of HCl.

INDICATIONS FOR SURGERY IN SEVERE BELL'S PALSY

BY

A. TUMARKIN, F.R.C.S.Ed.

Permanent deformity after Bell's palsy is generally believed to be rare. This is unfortunately not so. Duell¹ states that fully 20 per cent. of cases do not recover completely, and there can be no doubt that his view is correct. Naturally the degree of residual palsy varies, but the most superficial examination of a group of cases will convince any investigator that some deformity persists in a considerable percentage of cases. Permanent facial palsy in a working-man may not be a very serious matter, but in a sensitive young woman its effects may be serious. Nerve grafting in the late stages of such a case is not likely to be a satisfactory procedure, for obvious reasons. It is far better to decompress the nerve in the early stages.

Recovery after Decompression

Recovery after such an early decompression is not a matter of months or even weeks. Improvement can be detected within a few hours of operation, and may be complete in a few days. Tempea,² who operates under local anaesthesia, states that the patient may actually feel the improvement on the operating table. One of my own cases showed definite improvement within thirty-six hours, and was completely cured in three days. I need not stress how gratifying such a dramatic recovery can be. Nevertheless, the operation of facial decompression is not lightly to be undertaken. To recommend it as a routine procedure in the early stage of Bell's palsy would be fantastic. Thus the problem arises: Is there a criterion whereby we may decide in the early stage that a given case is unlikely to recover?

In an attempt to discover such a criterion the problem was approached from a statistical standpoint. We sent out a questionnaire to 133 patients for information as to their early symptoms, degree of recovery, and so forth. We received sixty-seven replies, of which only fifty-one related to true Bell's palsy. Of these no fewer than twenty-six said they were not completely cured. Let us admit that most of those who did not reply were cured. Let us exclude another eight failures that were of less than eighteen months' standing. There still remain eighteen failures in a series of about 100 cases.

Summary

1. Excessive primary haemorrhage is the chief source of difficulty in endoscopic resection of the prostate, and leads to inadequate removal of tissue. It can be minimized by the local infiltration of the prostate with a solution containing adrenaline.
2. Secondary haemorrhage from infection is likely to follow incomplete emptying of the bladder due to inadequate removal of tissue; it may lead to clot retention.
3. In the event of clot retention an attempt should be made to break up the clot by the injection of pepsin. Only if this fails is it necessary to open the bladder.

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Analysis of Symptoms

An analysis of the symptoms in these cases showed that pain and loss of taste were of grave prognostic significance. Vertigo, hyperacusis, rash, pyrexia, and so on were of much less importance. The following comparison between the twenty-five cures and the eighteen failures will make this clear.

Cases	No Pain, No Loss of Taste	Pain, but No Loss of Taste	No Pain, but Loss of Taste	Pain and Loss of Taste
25 Cures ...	18=72 per cent.	4=16 per cent.	2=8 per cent.	1=4 per cent.
18 Failures	2=11 ..	6=33 ..	4=22 ..	6=33 ..

Stated simply it may be said that if the patient has both pain and loss of taste the chances are 2 to 1 that he will not recover; but if he has neither of these symptoms the chances are 25 to 1 that he will recover. Less importance is to be attached to the presence of only one of these symptoms.

The site of the pain varied considerably, as did also its severity; it was rarely a true otalgia. More commonly it was referred vaguely to around the ear, or to the vertex, or even down the shoulder. The loss of taste was very marked. One patient accused his wife of poisoning him, as all his food tasted oily. It is very desirable that these investigations should be repeated, and in particular patients should be under close observation from the outset, so that the progress of their nerve reactions can be watched. If confirmation of the above figures is obtainable I believe we shall have gone far towards the solution of this problem.

Nerve Viability

The potential value of such a rule as I have stated is well brought out by two cases described by Sanders,⁸ in which the inexorable progress of the paralysis compelled him to operate. Each patient spontaneously complained of pain and loss of taste. Thus the application of the rule would have justified him in operating much earlier than he did. The value of early operation should need no stressing. An interesting point, however, arises out of one of Sanders's case histories. He states that this patient had a definite reaction of degeneration for four days before he operated. Nevertheless improvement was apparent within six hours of the operation. If this is correct we must believe that the nerve is still viable even in the

presence of a reaction of degeneration, at any rate in the early stages. The importance of this is clear. While willing to advise decompression in the early stage of a Bell's palsy, one has been more reluctant when this reaction has developed, on the grounds that there was no prospect of immediate recovery. We may now be entitled to take a more optimistic view, if confirmation is obtainable.

Summary

1. Permanent deformity after Bell's palsy is far commoner than is generally realized.

2. In a young, sensitive woman its effects may be so serious as to justify operation.

3. Up till now it has been impossible to advise operation owing to our ignorance as to the prognosis in any given case.

4. A criterion is proposed for such cases, and indications for further research into the problem are outlined.

My grateful thanks are due to the various colleagues who allowed me access to their files, and also to Miss Margaret Frank, without whose enthusiastic co-operation this laborious questionnaire could not have been compiled.

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"DEROTATION" OF THE TIBIA

BY

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The operation which is sometimes called "derotation of the tibia" is principally indicated in two types of case:

1. Cases of congenital club-foot in which the associated medial rotation of the distal tibial diaphysis has not been sufficiently corrected during the manipulations carried out on the deformed foot.

2. Cases of fracture of the bones of the leg where union has taken place with too much external or internal rotation of the distal part of the leg.

The usual operative procedure adopted is either osteoclasis or by open osteotomy. After the tibia has been broken or sectioned, the leg is put up in the correct position and is enclosed in a plaster case until union has taken place. This method is almost invariably successful in children, but when applied to malunited fractures in adults is followed sometimes by delayed union or non-union—probably because the vascularity of the bone is not normal. In order to minimize the likelihood of this unfortunate result, the following operation was devised some years ago, and proved so successful that I have used it since as a routine measure for "derotating" all tibiae. It is possible that this operation, or one similar, has been described before, because the principles are so obvious, but if it has I have not seen any reference to it. Briefly, the operation consists in making an oblique subperiosteal fracture of the tibia and setting it in the desired line.

The Operation

A longitudinal incision is made over the medial surface of the tibia, and the skin and subcutaneous tissues are dissected up and retracted so as to expose the periosteum covering the bone. A flap of periosteum (Fig. 1) is outlined, and is elevated from the medial and lateral surfaces of the tibia, some bone slivers being left attached. A series of drill holes is now made through both cortices

of the tibia, passing from the front to the back. The gauge of the wire twist drill used depends on the size of the tibia to be perforated. With a small child size 33 is large enough, but with an adult size 16 is more satisfactory. Usually about eight to ten holes are sufficient. The points of entrance make a straight line downwards and inwards or downwards and outwards, according to whether it is desired to rotate the foot outwards or inwards (Figs. 2 and 3). It is not necessary to strip the periosteum from the posterior surface of the tibia or put in any shield to protect the tissue behind, as tactile sensation gives ample warning as to when the point of the drill is about to complete the penetration of the posterior cortex.

When the holes have all been drilled their points of entrance through the anterior cortex are joined by cuts with a thin-bladed osteotome, and the cortex of the lateral surface of the tibia is sectioned at the upper or lower end of the line, according to whether lateral or medial rotation is required. The foot and lower part of the leg are then rotated vigorously, laterally or medially as the case may be. This leads to a gaping of the drill-osteotome cut in the anterior cortex (Figs. 4 and 5), and twisting, or bending without separation, of the posterior cortex, which is sufficiently weakened by the drill perforations to enable this bending to take place.

FIG. 1. FIG. 2. FIG. 3. FIG. 4. FIG. 5.

To ensure that the parts do not return to their former position, two small wedges are cut with a chisel or osteotome from the neighbouring bone, as indicated by the dotted lines in Fig. 5, and are jammed into the gap in front. The periosteal flap is then sutured back into position. This may necessitate the making of longitudinal relief incisions in the periosteum covering the crest of the tibia. It is highly desirable that the gap should be covered by the periosteum, for then a closed haematoma is produced, and bone formation quickly follows. In a very few cases transverse osteotomy of the fibula, at the junction of the middle and lower thirds, is indicated. The skin is sutured with catgut, and a plaster cast is applied over sterilized stockinette. In the adult, union is generally firm by the end of six or eight weeks, and in a child in four to six weeks. No special treatment is required after the plaster cast is removed.

The ninth Congress of the French Paediatric Association will be held at Bordeaux, from May 28th to 30th, under the presidency of Dr. C. Rocaz, when the following subjects will be discussed: epidemiology and pathogenesis of infantile acrodynia, introduced by Dr. Péhu of Lyons; insulin treatment in the child, introduced by Drs. Aubertin of Bordeaux and Lelong of Paris; dystrophic disorders of the thorax, introduced by Drs. Lévêque, Ombrédanne, and Garnier of Paris. French or foreign members of a paediatric society may take part in the congress on payment of a subscription of 100 francs. Further information can be obtained from Dr. Boissier-Lacroix, 27 bis, Cours Xavier Arnoz, Bordeaux.