TREATMENT NOTES

FACIAL PALSY

In the previous issue of the Journal we have read the excellent article article by Dr. Jackson on the pathology and prognosis of Facial Palsy together with treatment rationale.

In this article Dr. Jackson mentioned that such a condition was the concern of the Physiotherapist so far as the necessary supportive treatment of the paralysis. In addition so many of these patients complain of pain, this being the direct result of pressure or disease, and much can be done to alleviate this distressing complication.

There are two stages of treatment for Facial Palsy that of the acute stage and that of the stage when the pain has ceased.

Aims of treatment during the acute stage are:

1. To relieve pain.
2. To reduce swelling and assist in the absorption of inflammatory products.

Method of treatment:

Most patients respond to Shortwave Diathermy more quickly than alternative methods.

This is given either with a coplanar or through and through technique.

If the condition has been diagnosed as a Ramsay Hunt Syndrome (Herpes in the ear), or middle ear infection the through and through technique is the treatment of choice with a wide spacing of the electrodes to avoid concentration on the ear.

The dosage is athermal for short duration i.e. 2 or 3 minutes progressing in time and later in intensity.

In the absence of the above pathology and the presence of localised pain behind the ear a coplanar technique is employed for its selective tissue heating two 1½ inch electrodes are used one behind the ear over the lateral aspect of the occipit, and the other anterior to the ear over the parotid gland the electrodes should be slightly oblique to each other to ensure the field penetration.

Alternative techniques:

Anodal galvanism with the active electrode over the area of pain, dosage being ½ m.a. per square inch of pad for ten minutes progressing in time to 20 or 30 minutes and later in intensity to 1 m.a. Most satisfactory results are obtained with a kidney shaped active electrode.

When the pain has subsided, usually after a maximum period of 14 days (depending on the pathology) the treatment is modified to the following aims.

Aims of treatment:

1. To maintain the physiological properties of the muscles of expression on the affected side.
2. To prevent contractures both primary and secondry.
3. To re-educate voluntary movement.
4. To ensure good circulation in the paralysed muscles to maintain nutrition.

Method:

In the earlier stages during the first three weeks the nerve muscle response to stimulation is frequently altered but no diagnosis as to severity of the R.D. can be assessed, it is therefore useless to perform an electrical test.

There are divided opinions as to the reasonability to stimulate muscles electrically at all at this stage as in some cases, where recovery is spontaneous there is a grave danger of over stimulation and the production of secondary contractures. If stimulation is employed care should be taken and type of current selected carefully, and single impulses rather than tetonic impulses are advisable.

Heat, either in the form of infra red or a warm moist towel should be applied over the muscles for ten minutes.

Massage, given briskly and lightly is a useful adjunct for its circulatory and psychological effect.

Exercises are important from the beginning. At first the patient is taught to attempt relaxation of the sound side and contract the effected side, as movement returns bilateral contractions are given in the re-education of the affected muscles. At no stage should a hand be placed over the sound side as it acts as a stimulus and stronger resisted movements of that side result.

Stimulation:

After three weeks a muscle test should be given to assess the degree of paralysis both qualititive and quantitive.

(a) **Galvanic Faradic** test, should be first employed as a crude puantitive test for conductivity on the three main branches of the nerve as to whether alteration to electrical stimulus is present, if this test shows a positive result a qualititive test should be employed to assess degree of R.D. and prognosis.

(b) **Strength duration Curve**—this being the plotting of the current intensity against the time factor. The Rheobase Chronaxie and accommodation test should also assist in establishing an accurate diagnosis.

When it is known whether the reaction is that of a complete degeneration or a partial degeneration on the degree of partial innervation, stimulation should be added to the general treatment.

Selective Muscle Stimulation:

This has been employed in these cases with highly encouraging results.

Method, an exponential wave form of between 200 and 400 milliseconds in time (the pulse length being adopted to optimum on the patients' reaction). Two electrodes each 2×3 inches are taken, one the anode, with its pad is placed on the forehead of the sound side, the cathode in the anterior neck triangle of the affected side. The interval between pulses must be long enough to allow complete relaxation between stimuli i.e. 3—5 seconds.

This method causes contraction of all the paralysed muscles. This group treatment can only be given where there is either a Complete Reaction of Degeneration or a severe Partial Reaction of Degeneration.

Individual Muscle Stimulation:

The indifferent electrode and pad is strapped to the upper arm. It is usually the anode but to assure best results a polar test is given first. A disc electrode is used on the muscle motor points for stimulation. An exponential pulse is used in the case of P.R.D. until the Rheobase begins either to rise or the chronaxie falls within normal limits. The length of the stimulus being 100—200 milliseconds. This is the treatment of choice where the strength duration chart shows the irregularity of inconstant reinnervation and at this stage some voluntary control of the bilaterally ennervated muscles of the forehead is noticable. The number of stimulii given at all stages should not exceed 15, due to the mobile muscle attachments and contracture tendencies.

Conclusion:

In these notes I have made no attempt at discussion on the wider aspects of alternative techniques, there are many

and I am sure all physiotherapists will agree that the treatment of Facial Palsy is and will always be contraversial. The important factor is the end result and the techniques used as above have shown these to be good.

Jean Blair, M.C.S.P.
Senior Lecturer,
University of the Witwatersrand.

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PERINEOMETRY – Method of Treatment

Faradism to strengthen the weak pelvic floor may be given as for prolapse by using a sterilised metal-tipped vaginal electrode, with the indifferent pad placed on the sacrum. However, the following method, used for milder cases, is simpler, and also enables the patient to realise what muscles she is to try and use when performing the free exercise.

The patient is placed in crook lying on a rubber sheet covered with a towel, the knees being supported by a pillow.

The indifferent electrode is large, about 10 x 8 inches, and is padded and placed under the sacrum. This is usually sufficient to ensure a good contraction, but some patients find that by placing the indifferent pad on the abdomen gives better results.

The active electrode, measuring 6 x 2 inches, padded, is placed against the perineum from front to back, and kept in position by a small sandbag. The pillow under the knees prevents any movement of any kind on the part of the electrode. Should there be any abrasions, a little Vaseline on the sore areas will protect them, but this is very rarely necessary.

The electrodes are connected to the faradic coil, and the current is increased until the patient feels a very definate contraction of the perineum. It is surged to this intensity throughout the treatment.

EXERCISES

As soon as the faradic stimulation is completed, free exercises are given. The patient already has an idea of where and how she will be expected to work.

Exercise I.

Position—Crook lying. The patient is told to press the inner surfaces of the knees together as hard as she can; a fold of blanket can be inserted between the knees to encourage her to grip as firmly as possible. Then, at the same time, while still gripping, the inside of the thighs must be strongly pressed together. Relax.

Exercise 11.

Gluteal contractions. Relax.

Exercise III.

Using the adductors as in Exercise I, combine with gluteal contractions. Relax.

Exercise IV.

Perineal contractions. This exercise can be taught in combination with the perineometer, and the exercise repeated when the perineometer is removed. In an endeavour to make the dial register a higher figure on the scale, African patients often become over enthusiastic, and adductors, glutei and abdominals are all brought into play to try and beat the previous record! The movement must, and can, be confined to the perineum only.

Any other relevant exercise, such as pelvic tilting, and abdominal contractions, may be given as the physiotherapist thinks fit.

Mary G. Dobeyn, M.C.S.P.

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