MAINTENANCE OF POSTURE BY HYPNOTIC SUGGESTION IN PATIENT UNDERGOING PLASTIC SURGERY

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A recurrent problem in plastic surgery is the maintenance in apposition of two normally widely separated areas while tissue is being transferred from one to the other. The mechanical measures usually employed, such as plaster-of-Paris, frequently immobilize most of the patient's joints and create a series of difficulties in themselves. The patient is often uncomfortable; nursing may be heavy and difficult; troublesome plaster sores may develop; whilst the stiffness that occurs in the immobilized joints may require weeks of physiotherapy for its relief.

In view of all these difficulties, when the possibility of securing fixation by means of hypnotic suggestion occurred to us a trial was made without delay upon a patient who happened to be in the ward. The patient, aged 24, had suffered an extensive loss of tissue from the fore-part of the right foot, which was to be repaired with a pedicle from the abdomen transported via the left forearm. The pedicle had already been raised and was just ready to have its upper end transferred to the forearm.

It has long been known that in certain subjects under hypnosis it is possible to place them in bizarre postures and, by appropriate suggestions, cause them to remain fixed there until the suggestion is given for their release. By the use of "post-hypnotic suggestion" it is possible to cause them to remain fixed after the hypnotic state has been terminated. There is no theoretical limit to the time that a post-hypnotic suggestion, once effective, will remain so, and by periodic reinforcements its effect could be prolonged indefinitely. A position maintained in this way is done without fatigue and without the conscious concern of the subject.

These were the techniques which we proposed to apply to the patient, and he readily agreed to co-operate. We could not have wished for a more encouraging subject.

Preliminary Procedure

At the first attempt the patient reached the deepest level of hypnosis; that is, he was able to open his eyes, talk, and move about freely whilst still remaining under hypnosis. Complete analgesia to pin-prick was soon achieved (though never, for some reason, to the cut of a scalpel). We next proceeded to the fixation of the left arm in the position against the abdomen which would be called for at and following the operation. The arm was placed in position and the patient was told that, at the command "Lock it," the arm would become fixed in that position and would not move from it under any circumstances until the command "Unlock it" was given. The result was successful. He could not move it voluntarily, nor could two attendants, using considerable vigour, pull it away. After this test the command to unlock it was given. Next it was suggested to him that on future occasions when

certain specified persons said to him, "Now I am going to send you to sleep," and then counted from 1 to 10, he would pass into a hypnotic state exactly of the same depth as he had achieved that day. He was then awakened and went back to the ward.

A few days later the second session was held. It was exactly similar to the first, except that hypnosis was satisfactorily induced by using the formula suggested at the first session.

After a further few days a third session was held. On this occasion, however, the arm was not released after fixation. Instead, he was told that it would remain in position overnight while he slept. This, we felt, was a crucial point. We were delighted to find next day that he had slept well and that the position of the arm had not changed at all. It was now thought to be justifiable to perform the operation.

Operation

The patient was brought to the theatre without premedication, and hypnosis was induced in the usual manner. It was hoped that it might be possible to perform the operation under hypno-analgesia alone, but, though he was completely anaesthetic to pin-prick, he expressed some discomfort at the incision by a scalpel. Some local analgesic was therefore injected. The upper end of the pedicle was freed from the abdomen and inserted into the left wrist. A light dressing was applied and the forearm and wrist were adjusted to the optimal position. He was then ordered to lock it. Suggestions of freedom from any post-operative discomfort were given, and he was brought out of hypnosis and returned to the ward.

The position was maintained accurately until released at the next operation, three weeks later, when the lower end of the pedicle was also freed from the abdomen and inserted into the forearm. It was observed with astonishment that, from the moment of release, movement at the elbow and shoulder was completely normal—full, free, and painless.

In due course the pedicle was ready for one end to be freed from the wrist and inserted into the fore-part of the right foot. A day or two before the operation a rehearsal session was held. Hypnosis was induced and the patient's left hand was then placed on the dorsum of the right foot. He was commanded to lock it there, and told that he would maintain the position throughout the night's sleep until the morrow. Again the result was all that could be desired, and two days later the operation was performed.

The patient was again placed under hypnosis, and suggestions of analgesia were given. They were supplemented with careful injections of local analgesic into both the hand and the foot. Perfect analgesia resulted, which cannot always be obtained in the foot despite every care. When the moment came for the insertion of the freed end of the pedicle into the prepared site on the foot the convenience of having a fully co-operative patient, in contrast to the problem met under a general anaesthetic, was greatly appreciated.

The insertion was accomplished uneventfully and a light dressing was applied. The left forearm was then placed in the precise position required on the dorsum of the right foot and the patient was commanded to lock it. It was then emphasized to him that movement in all other joints would be limited only by the proviso that the position of the left forearm in relation to the right foot would remain constant. It was further stressed that there would be no post-operative discomfort of any kind and that he would sleep normally. Hypnosis was then terminated and he returned to the ward.

Actually the patient required small doses of sedative on each of the first three nights to assist him to sleep sitting up. In all other respects the suggestions were completely effective. By appropriate combinations of flexion of spine and hip with extensions of knee and elbow, and vice versa, he achieved truly astonishing mobility. He was able to feed himself and attend to all his own hygiene and toilet, even

to the extent of taking a bath. He could move about freely with the aid of one crutch and sit comfortably in a chair. Morale remained high throughout. There was never the slightest apparent shift of the forearm and hand on the foot.

Waking and sleeping, this state of affairs was maintained until, after 28 days, the pedicle was deemed fit for complete separation from the forearm. He was then hypnotized, the attachment of the pedicle to the wrist was severed, and the suggestion given to "unlock." Immediate testing revealed free and full movement at every joint, large and small. The spine could be hyperextended; the fingers of the left hand could manipulate a cigarette lighter. A totally unexpected and most agreeable finding was completely normal skin without a trace of maceration at the surfaces of the left hand and right foot, which had been in apposition.

Discussion

The benefits of this form of fixation in this case were self-evident. It cannot, of course, be expected that every case would respond likewise, but the presence of one such successful case in the ward might be expected to predispose new arrivals favourably. The induction of hypnosis is not difficult to learn, though for reasons which are far from clear some operators tend to be more consistently successful than others. Once one member of a hospital staff began to acquire some reputation in this respect his percentage of successes would be likely to increase.

The initial induction of hypnosis may take upwards of half an hour. Once this has been achieved, however, appropriate suggestion will enable any specified person to re-induce that state in a few moments and carry out the further preparation of the patient. There is no reason why, for example, members of the nursing staff or physiotherapists should not be trained in this part of the work. This would have the advantage that the patient and staff, after the initial induction, are rendered independent of the hypnotist, who is also in no way tied.

From the surgical point of view it was feared that the muscular contraction involved in maintaining the position might cause venous stasis to the detriment of the pedicle. In the event there was no evidence to suggest that this was the case.

Psychologically, it was interesting that the suggestions remained effective throughout normal sleep. Would they remain so under a dose of thiopentone? If the patient were to stumble, might he then reflexly try to wrench his hand free to save himself? One feels that investigation into these points might clarify the relationship between that altered state of consciousness we call hypnosis on the one hand and that produced by a sub-anaesthetic dose of thiopentone and by states of hysterical dissociation on the other.

It is felt that hypnosis, when possible, could provide the ideal method for those patients with burns who require frequent anaesthetics for their dressings, since no meals need be missed. This is an important consideration when maintenance of the level of plasma proteins is a difficulty.

Summary

A case is described in which the fixation of the left hand in apposition to the right foot, for the purpose of transferring tissue, was achieved by hypnotic suggestion. The technique is described in detail, and the advantages of the method and the possibilities of its wider application are discussed. Attention is drawn to points of psychological interest.

We should like to record our appreciation to our patient for his readiness to co-operate in the experiment, which might, almost too literally, have come unstuck, to his very considerable disadvantage.

Medical Memoranda

Massive Doses of Bemegride and Amiphenazole in Treatment of Barbiturate Poisoning

The value of bemegride and amiphenazole in the treatment of barbiturate poisoning has been fully established since their introduction by Shaw *et al.* (1954) and Shulman *et al.* (1955). Untoward effects from these drugs are rare, but in excessive dosage vomiting, convulsions, and psychic disturbances have been reported.

In the following case exceptionally large doses of both drugs were used without mishap.

CASE REPORT

A spinster aged 58 was seen in the casualty department of the Luton and Dunstable Hospital on October 27, 1956, at 3.15 p.m., having taken a large overdosage of butobarbitone ("soneryl") tablets approximately 17 hours before admission. The actual amount taken was never established. She was deeply unconscious, the pulse was feeble, rate 64 a minute, blood pressure 80/60 mm. Hg, respirations 20 a minute. There were moist sounds in the chest. The pupils reacted to light, but the corneal reflexes and the reflexes of the arms and abdomen were absent. The knee-jerks were present, but the ankle-jerks and plantar reflexes were absent; there was no response to painful stimuli. Treatment was started immediately; the stomach was washed out, a 5% dextrose-saline drip infusion was set up, and at 4.15 p.m. crystalline penicillin, 500,000 units six-hourly, was started. Bemegride and amiphenazole treatment was then begun, 1 ml. (15 mg.) of amiphenazole, followed immediately by 10 ml. (50 mg.) of bemegride, being injected every three to five minutes into the rubber tubing of the drip. At 5.55 p.m. the "safe state" had been reached, indicated by the return of muscle tone and all reflexes, after a total dose of 1.1 g. of bemegride and 0.33 g. of amiphenazole had been given. The blood pressure was then 100/50 mm. Hg, pulse 90, and respirations 25; all reflexes were present. The patient made some attempts at retching and responded to painful stimuli. Treatment was discontinued. At 11.50 p.m. the signs were unchanged.

At 9 a.m. on October 28 the signs were the same. At 3.30 p.m. no reflexes were present and the patient did not respond to painful stimuli. As there had been no improvement by 6 p.m., bemegride and amiphenazole treatment was restarted, the injections being given at approximately five-minute intervals. A further 5 g. of the bemegride and 1.5 g. of amiphenazole were necessary before the "safe state" was again reached by 3 a.m. on October 29. Blood pressure was 120/60 mm. Hg, and pulse 100; all reflexes were again present, the patient reacted to painful stimuli and attempted to retch. At 3.30 p.m. the signs were the same and she seemed to be more conscious. Lumbar puncture at this time showed the C.S.F. was clear and colourless; pressure 170 mm. water.

At 9.30 a.m. on October 30 the patient was still unconscious and, apart from a corneal reflex, no other reflexes could be obtained. There was no response to painful stimuli; the temperature was 102° F. (38.9° C.); she was flushed, sweating, and slightly cyanosed; the respiratory rate was 30, and there were moist sounds all over the chest.

Her condition had greatly deteriorated, and, although she had had large doses of bemegride and amiphenazole, it was felt that unless she was brought to the "safe state" fairly rapidly she would succumb from her bronchopneumonia. It was therefore decided to restart bemegride and amiphenazole treatment. A further dose of 7.9 g. of bemegride and 2.37 g. of amiphenazole was necessary before the "safe state" was again reached. She began voluntary movements of her arms and legs soon after a response had been