

Hypnosis in the Management of Denture Intolerance

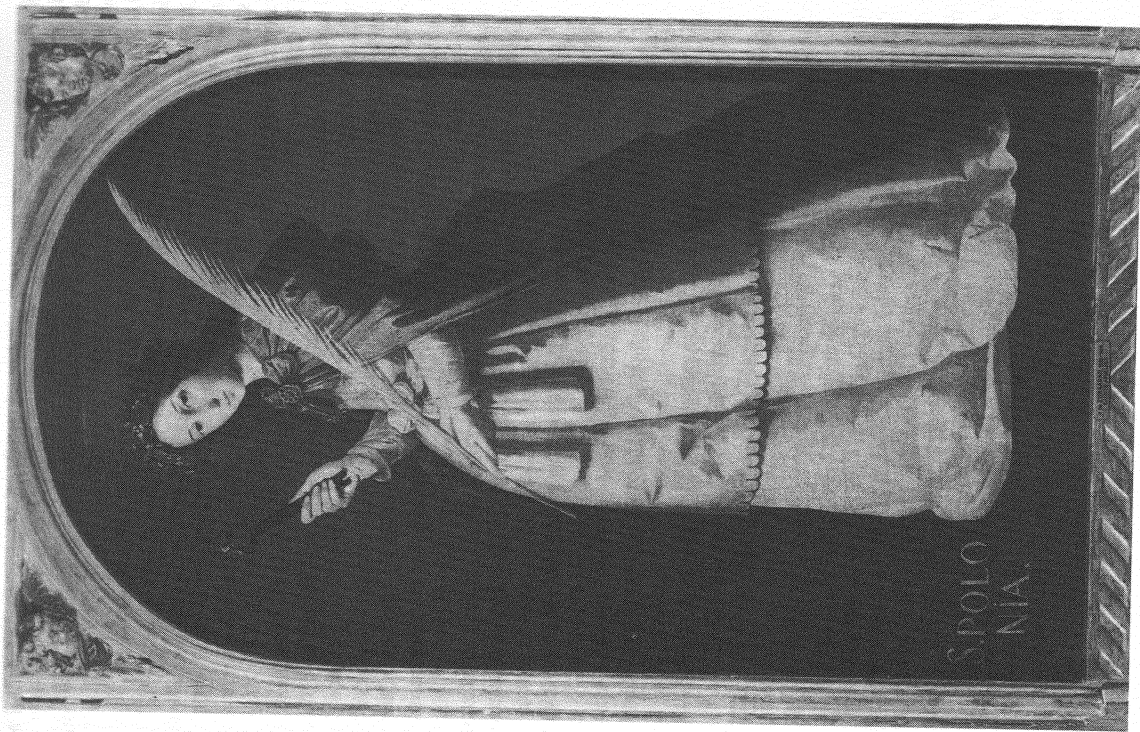
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■ *Intolerance of dentures may have dental or psychological causes. It is within the latter group of patients, provided that they are genuinely motivated to wear a denture, that the use of hypnosis may be helpful. The importance of careful patient assessment and exploration of appropriate treatment strategies with the patient is emphasised. Principles of treatment including relaxation, controlled breathing, visual imagery and reframing are described. All of these techniques may be used in conjunction with conditioning / desensitisation and a gradual progression to denture wearing.*

Inability to tolerate the construction and wearing of dentures is a distressing problem that affects some patients, both partially dentate and edentulous. Sometimes when dentures have been constructed but subsequently cannot be worn this may be the result of errors on the part of the dentist. Discomfort, poor retention and stability or incorrect occlusal relationships may all produce difficulties in tolerating dentures. If the cause can be identified and the error corrected either by appropriate adjustment or sometimes by remaking the dentures, then the problem of denture intolerance may be resolved. This article, however, is concerned with the management of those patients whose difficulties are more of a psychological nature and whose rejection of foreign objects in the mouth may prevent the acceptance of any dental treatment including the provision of dentures.

Typically, the physical manifestations of this problem present as one or more of the following actions on the part of the patient when dental treatment is attempted: 'gagging', vigorous tensing of the lips and circumoral musculature, a 'defensive' tongue and sometimes hyperventilation. There may also be excessive salivation, lacrimation, coughing, sweating and in some instances actual vomiting may occur. Gagging is perhaps the most widely reported and discussed feature of the problem. The nature and physiology of 'gagging' have been well described by Conny and Tedesco (1983).

For suitable patients, hypnosis can be used to facilitate specific treatment strategies



*St Apollonia, patron saint of dentists
Appollonia was martyred under the Roman emperor
Gaius Messius Quintus Traianus Decius (200 - 251 A.D.)
(from the library of Per-Olof Wickström)*

and may involve the control of anxiety and breathing, the use of conditioning / desensitisation techniques and boosting the patient's self esteem.

Patient Assessment

Thorough patient assessment is essential and should include careful medical and dental histories and the clinical examination should include an assessment of any previous dentures. Conny and Tedesco (1983) have briefly reviewed systemic disorders which might have some impact on the gagging reflex but according to Wright (1979), there is little evidence of a greater incidence of gastro-intestinal or social factors in patients with a tendency to gag. In her study the only general health findings found to be significant were smoking and catarrh. Excessive smoking and drinking were also suggested as significant factors some thirty years previously by a Discussion Group (1949) in Australia. On the basis of only one case Machella (1961) questions whether hiatus hernia is implicated as a cause of gagging. The present author has found that this is an occasional finding reported by some patients but whether the incidence of this condition in 'gaggers' is any greater than in the general population is unknown. It is plausible, perhaps, that chronic problems of the gastro-intestinal tract may increase irritability and lower the threshold to oral stimuli that would normally be insignificant but for some individuals result in heightened awareness and sensitivity.

The dental history is often significant and many patients with a gagging problem have a long history of difficulty in tolerating any dental treatment not just denture construction. 'Gagging' and the other features previously described may be a manifestation of general anxiety about dental treatment and this needs to be carefully and sympathetically explored. Memories of fearful events in the past may re-voke anxieties so that a relatively minor stimulus or procedure, such as examination of the mouth, may trigger a disproportionate response. Frequently, these patients have neglected mouths and when they have teeth remaining these may be in a poor state. Their experience of dentistry is sometimes limited to extractions or when other treatment has been provided this may have been facilitated with the aid of sedation.

In some cases even self-inflicted stimuli such as brushing the teeth may initiate gagging. An occasional finding in such severe cases is that the patient also has difficulty in tolerating tight or restrictive clothing around the neck. Male patients, for example, tend to wear their ties loosely or prefer not to wear one. Such patients are at one extreme of the spectrum and contrast with those who have at least been able to tolerate denture construction, albeit with difficulty, but who subsequently cannot wear their dentures. With the latter group of patients it is essential to assess their dentures in the mouth. In some instances the cause of the patient's problem may be attributed to faults in denture construction, such as occlusal errors, poor retention or lack of tongue space, and where these faults can be corrected there is no indication for adjuncts to treatment such as hypnosis. It must be emphasised that the use of hypnosis is not a means of facilitating the acceptance of poor treatment.

Behavioural observation is also an important part of patient assessment. Examination of the mouth may give an initial indication of future difficulties that may be encountered with treatment and the degree of distress experienced by the patient during examination should be noted. Vigorous tensing of the lips and a thrusting 'defensive' tongue are common findings and in extreme cases the patient's defence of their oral cavity is so effective that intra-oral examination may not be possible at the first visit. Sometimes a cursory examination may be possible using just a light and no instruments. An orthopantomographic radiograph is useful for the partially dentate patient in revealing the state of the mouth when an intra-oral examination is not possible at the first visit.

At the conclusion of the first visit some general points may be discussed with the patient:

- Their problem is not unique and most people can be helped to wear dentures if they really wish to do so. This is a key point to emphasise since ultimately success in wearing a denture and success with the use of hypnosis will depend on their motivation.
- The solution to their problem is not simply a question of making them dentures (either for the first time or replacing unsuccessful ones) and hoping for the best. In most cases a gradual process of conditioning and desensitisation is likely to be necessary and may extend over a considerable period. This may involve the construction of 'training bases' (thin baseplates of acrylic resin which cover the available denture bearing area), which are subsequently modified until they are converted into conventional dentures.
- Where some or all of the remaining teeth need to be extracted it is explained that this will be delayed (unless there is some acute problem necessitating urgent extractions), until the patient has got used to a simple acrylic resin partial denture. This can subsequently be modified by the addition of teeth to facilitate a gradual transition to a more extensive partial denture or perhaps a complete denture.
- Hypnosis is not a treatment but may be considered as an adjunct to facilitate specific treatment strategies. If the use of hypnosis is considered at this stage and the patient expresses an interest in this, there are two essential requirements: firstly, that the patient is motivated to achieve the target end result, that is to be able to wear a denture, and secondly that they are willing to learn and experience hypnosis.

Taking time to discuss the patient's problem fully and explore possible treatment strategies is extremely important in establishing a good rapport and creating a sound basis for a successful outcome. It is essential that patients appreciate that there is no 'quick fix' solution to their problem and that achievement of the desired goal (being able to wear a denture) is likely to take time and considerable effort on their part. Only when this is agreed and accepted can one proceed to discuss and embark on specific treatment strategies.

There are few contraindications to the use of hypnosis. Apart from poorly motivated patients one should avoid the severely depressed and also psychotic patients. In

general, these groups are easily recognised from their histories. Perhaps the most important contraindication is to avoid that patients who come with the expectation that you or the use of hypnosis will solve all their problems without any effort on their part. This is simply not true and such patients are best avoided. Patients who derive some secondary gain from their inability to wear dentures should also be avoided.

Preparation of the patient

Hypnosis can be used both informally and formally. Informal approaches really make use of hypnotic techniques and phenomena but without the use of a formal induction procedure. For example, many dentists may employ distraction techniques when making impressions of a patient with a tendency to gag. Krol (1963) suggests asking the patient to concentrate on raising one leg while an impression is made of their mouth. This is coupled with the suggestion that as long as the patient concentrates on doing this, treatment will be accomplished. More recently, Graham (1987) has advocated the technique of getting the patient to grip a rod made from a short length of broom handle or similar material and to concentrate on a centrally placed mark. This is combined with the suggestion that as long as they concentrate on the mark and grip the rod tightly, it will be impossible to gag. Visual imagery and even imaginary music can also be used as sources of distraction and undoubtedly such techniques are successful in some cases.

With more formal approaches it is desirable to spend a visit on preparation of the patient for hypnosis. Patients should be asked if they have ever experienced hypnosis and what they know about the use of hypnosis. At this point it is necessary to discuss some popular misconceptions. For example, it is explained that medical hypnosis is not like stage hypnosis; that there will be no loss of consciousness or control and no surrender of will. It is emphasised that hypnosis is a natural state, rather like a daydream and that patients will not be made to do anything but helped to achieve their goal. Patients are told that hypnosis is a very good way of relaxing both mentally and physically but requires conscious effort on their part. The importance of practising self-hypnosis as a means of reducing tension and anxiety levels is emphasised. Patients are advised that improvements may happen quickly but are more likely to take time. It is also explained that the provision of dentures will be carried out in a very gradual manner, starting perhaps with the provision of a baseplate to be worn for gradually increasing periods until desensitisation is achieved. It is also stressed that the patient will have 'homework' to do between visits as part of this process. This may involve the use of an audio tape which will be prepared by the dentist.

All of these points are reiterated in written information sheets which are given to the patient at the first visit. Depending on the severity of the patient's gagging problem, he or she may also be given a large plastic disc (about 3.0 cm diameter and 0.5 cm thick) to practise holding in the mouth until it can be kept in place for 1-2 hours. The disc should have a large hole drilled in its centre and if the patient wants an added feeling

of security and control a length of dental floss can be tied to this and left dangling from the mouth when the disc is inserted. Patients are advised that at the next session they will be helped to experience hypnosis but no active treatment will be carried out.

Treatment

At the second session the patient is asked to report on progress with the plastic disc, which is also an indication of their motivation, and if they have any further questions or worries about the use of hypnosis.

Hypnosis may be induced by any method of the operator's choice. The author has a preference for the rapid eye closure method described by Ellman (1964) but clearly it is desirable that the operator should be familiar with a number of techniques. It is important that both patient and operator are comfortable with the method used. After induction appropriate deepening procedures are used followed by suggestions for ego enhancement and confidence boosting. The principle of behavioural treatment, including desensitisation has been extensively described by Wolpe (1990) and is based on the assumption that fear and anxiety are essentially learned responses that can be unlearned, for example, by associating the feared situation with relaxation. Thus, for some patients, where the problem is largely the result of general anxiety about dental treatment, the state of mental and physical relaxation achieved by the use of hypnosis may be sufficient to allow the gradual introduction of dental procedures.

The introduction of large objects such as impression trays into the mouth may be accompanied by suggestions of deeper relaxation with each exhaled breath and focussing on relaxed abdominal breathing. This has been described previously by Speirs and Barsby (1997) in the control of hyperventilation in the dental chair and by Barsby (1994) in relation to 'gagging'.

Another useful technique in the control of gagging is to ask the hypnotised patient to visualise breathing through an opening in the neck in the crico-thyroid region. This was suggested by Clarke and Perischetti (1988) and is based on the idea that focussing on a place below the pharyngeal area allows the patient to mentally bypass the area associated with gagging.

After the first hypnosis session, assuming that this was successful and that the patient wishes to continue, the patient is asked to supply a blank audio-tape to be prepared by the operator for home use between appointments. A programme of 'homework' to be carried out before the next visit is also agreed. In nearly all cases, the use of hypnosis will be accompanied by progressive desensitisation and habituation to foreign objects in the mouth. Initially this may involve the use of a plastic disc as described previously. As soon as the disc can be tolerated easily for extended periods, a plastic disposable impression tray may be substituted. This can be given to the patient to practise holding in their mouth between appointments. Another appointment should be made within a reasonably short period of time (1-2 weeks).

On the subsequent session, progress and difficulties with the plastic disc or impres-

sion tray are discussed. Hypnosis is induced as previously. Depending on progress to date, an impression tray (either lower or upper) is inserted into the mouth and kept in place for a fixed number of breaths (perhaps 3-5 initially) during which suggestions of relaxation are given. For example: "Each time you breathe out notice how you are becoming more and more deeply relaxed; the next time the tray is placed in your mouth you may find that you can tolerate it for twice as long." Giving a suggestion in an indirect manner like this gives the patient a greater sense of control and awareness of meaningful responses. This procedure may be repeated until the patient can tolerate the tray for 1-2 minutes. Once the patient has reached this stage then one can proceed to make an impression. It is important that this impression is properly extended and fulfils the normal requirements for a primary impression. Following successful completion of an impression the patient is congratulated on how well he/she has learned to relax and tolerate these procedures. Various techniques may be employed to assist behavioural change. These include the use of visual imagery and 'reframing'.

Visual imagery can be used in a variety of ways. Imagining a calm relaxing scene, either described by the operator or chosen by the patient can be used to deepen relaxation or counter anxiety. Ego-enhancement techniques using visual imagery, such as 'The Cloud' and 'The Snowball' have been evaluated by Stanton (1990) as a means of increasing assertiveness but can easily be adapted to suit other problems such as denture intolerance. For example, with 'the cloud' technique, the patient is asked to visualise a small white cloud in a clear blue sky and to give an ideomotor signal when they can do so. They are then asked to put all the reasons, no matter how trivial, which are contributing to their problem, into the cloud. As they do this it is suggested that they will notice the cloud becoming darker and darker until when they can think of no more reasons it will be inky black. They are then asked to look at the cloud containing all these reasons for their unwanted behaviour and it is suggested that somewhere behind it they will see a source of light at first quite dim but becoming brighter. Ideomotor signalling is again used to confirm this visualisation. The operator then counts from one to five and suggests that as he does so the light will grow stronger and brighter until it begins to burn away the cloud. As this is happening it is suggested that the patient will increasingly be aware of the warmth of the sun bringing a feeling of increased confidence in their ability to overcome their problem.

Graham (1987) describes the 'split screen' technique for encouraging behavioural change. With this the patient is asked to imagine a TV or cinema screen divided vertically into two halves. On one side of the screen they are asked to visualise an image of themselves perhaps toothless (if appropriate) and embarrassed and on the other side they are asked to picture themselves successfully wearing dentures, happy, smiling and confident. In other words, one is using a suggested response to inhibit a pre-existing one, a well recognised principle of behaviour therapy.

The technique of 'reframing' is another technique for substituting alternative behaviour patterns. This has been extensively described by Bandler and Grinder (1982) and

involves getting the patient to 'talk' to the affected part of the mind through the 'unconscious'. This involves a logical sequence of steps. The operator should give the patient the following instructions:

- Contact that part of your mind that is responsible for your problem of tolerating things in your mouth. When it is listening, paying attention and wanting to help, ask the part to lift a finger on one hand.
- When the finger lifts congratulate the part for wanting to help but remind it that the way it is helping by making you gag has become the problem. Ask the part if it is willing to consider alternative ways to help and if so to allow the ideomotor finger to lift again.
- When the finger lifts, ask the patient to contact the creative part of his/her mind which weighs up all the advantages and disadvantages of this behaviour. When this part is listening and wanting to help, ask if it could lift another finger on the other hand.
- Now ask both parts to get together in the unconscious mind to discuss and agree better ways of helping the patient. When they have done this let both fingers and hands come together as a sign of agreement and acceptance of these better ways.
- Ask the rest of the mind to check that there are no parts that object to this new behaviour. If none objects allow a finger rise to indicate agreement of the whole mind.
- Finally, ask the patient to imagine this newly achieved way to behave and ask how it feels about being able to do so.

All of these techniques can be incorporated on the audio-tape which is supplied to the patient for home use after the initial hypnosis session with instructions to use it every day between appointments. Not all of these techniques will suit all patients and the tape needs to be carefully tailored to suit the individual. The length of the recording should be no more than twenty minutes.

Following successful completion of working impressions a training base may be constructed. In the case of an edentulous patient it is preferable to start with the maxillary base since retention is rarely a problem and as soon as one can get to a stage where anterior teeth can be added this will have a considerable confidence boosting effect. The patient is instructed to wear the base daily for gradually increasing periods. Initially this may only be for periods lasting a few minutes but when the patient can wear the base for several hours a day then one can progress to the addition of teeth. A number of case studies illustrating the use of training bases have been described previously (Barsby, 1994). Unless one has access to a very rapid laboratory service it may be preferable to have a duplicate base made for the patient to wear while teeth are added to the original. In this way the patient is never without a baseplate and a relapse is prevented. Training bases may also be used in the mandibular arch and some special techniques for the difficult complete lower denture have been described by Barsby (1975). The use of training bases can also be adapted for partial denture situations.

Clearly, the number of stages, duration of appointments and time it takes to reach

the point of having a finished and successful denture in the mouth will vary between individuals depending on their response to treatment.

Conclusions

Hypnosis is a useful aid in the management of some patients presenting with denture intolerance for psychological reasons. It may be used to reduce anxiety, facilitate conditioning / desensitisation techniques and boost self-confidence. It is difficult to say to what extent success in treatment is the result of the use of hypnosis since inevitably the management of denture intolerance also involves other psychological and dental techniques. It is also impossible to assess the extent to which the dentist / patient relationship plays a part in any therapeutic strategy. It seems likely, however, that hypnosis is a useful adjunct in the management of this problem.

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Key words: Denture intolerance, gagging, hypnosis

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received: November 4, 1996; accepted: February 3, 1997

The Role of Hypnosis in Treating Bruxism

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■ *Bruxism (tooth grinding and clenching) is a common problem causing chronic pain, severe tooth wear and other sequelae. Therapies that are quite effective for some patients do not benefit many others. A variety of remedies are needed and hypnosis may be one of the most effective treatments for longterm improvement. This article reviews the clinical significance of bruxism: its prevalence, methods of treatment, and the role of hypnosis. The only hypnotic treatment so far evaluated by objective research is described.*

Bruxism is defined as diurnal or nocturnal parafunctional activity including clenching, bracing, gnashing, and grinding of the teeth. The most common and troublesome sequelae of bruxism include recurrent (often daily) headaches, chronic jaw muscle pain and tenderness, severe tooth wear, and temporomandibular joint damage and pain (Katzberg, Westesson, Tallents & Drake, 1996; Thompson, Blount & Krumholz, 1994). Studies from Europe (Agerberg & Carlsson, 1975; Wigdorowicz Makowerowa, Grodzki & Maslanka, 1982), Canada (Lavigne & Montplaisir, 1994) and the United States (Glass, McGlynn, Glaros, Melton & Romans, 1993) all tend to report an overall prevalence of bruxism at about 20%. Because of a variety of methods and criteria, prior studies have sometimes reported a much higher prevalence than this, but using the individuals awareness of the problem and the presence of one or more symptoms as the main criteria, 20% to 26% is a conservative and reasonable overall range (Solberg, Woo & Houston, 1979; Van Dongen, 1992). The 25-35 year old age group is reported to have bruxism prevalence rates of 38% to 50%. Other age groups have lower prevalence rates (Glass et al., 1993).

The precise etiology of bruxism is still not known. However, recent research has provided a body of evidence that malocclusion and occlusal disharmonies are not significant etiologic factors (Vanderas & Manetas, 1995). Current evidence does support a hypothesis of a centrally (central nervous system) mediated response associated with emotional stress (Billups, 1992; Mercuri, Olson & Laskin, 1979; Pierce, Chrisman, Bennett & Close, 1995).