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USING HYPNOSIS TO AID RECOVERY OF TASTE SENSATION AFTER A COURSE OF RADIOTHERAPY: A CASE STUDY

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ABSTRACT

This is a case study of a 55-year-old lady, who lost all taste sensation after receiving an intensive course of radiotherapy. There was some improvement after two hypnosis sessions, and she made an excellent recovery after only eight hypnosis sessions. These findings suggest that hypnosis accelerates the rate of healing as regards taste sensation. The treatment involved powerful imagery of the preparation and eating of various food dishes. Though there were no explicit instructions as regards vasodilatation or increased warmth, it is argued that this could be a crucial factor in the accelerated healing of taste sensation.

INTRODUCTION

Therapeutic doses of radiation to the head and neck can produce considerable loss of taste sensation (Bonannl & Parazzi, 1965; Kalmus & Farnsworth, 1959; Mossman & Henkin, 1978). Conger (1973) showed that taste acuity reduces after radiation therapy, by 1000 to 10 000 times, to a state of almost complete insensitivity. He put forward the argument that the loss of taste acuity arises from radiation induced damage to the taste cell microvilli on the surface of the tongue. In the Conger study, taste acuity was completely restored for all patients in 60–120 days.

In 1981, Mossman, Schatzman and Chencharick carried out a retrospective study of patients who had been given radiotherapy to the head and neck 1–7 years earlier. Taste sensation was quantitatively evaluated, and it was shown that 9 of the 13 patients still had measurable taste loss. This is at variance with the Conger study of 1973.

The patient to be described was a 55-year-old lady who had lost all taste sensation following completion of a 6 week course of intensive radiotherapy for cancer. The primary site of the tumours was in the nasal cavity, and had spread to the glands in the neck. It was therefore necessary to irradiate both areas following surgery.

Conger (1973) proposed that loss of taste sensation is separate from the dryness that is frequently found after radiation therapy. In the patient described, taste sensation was fully restored even though salivary function was still considerably impaired. This patient was confident that hypnotherapy would be of value to her, and so had specifically requested this treatment approach.

In an investigation of burns patients, which was carried out by Moore and Kaplan (1983), a study was designed to evaluate the effect of hypnotically-induced vasodilatation in the healing of burn wounds. All patients in this study had symmetrically bilateral burns, but hypnosis suggestions were only applied to one side of the body, the other acting as the control. Out of the five patients in the trial, four demonstrated

quite clearly an acceleration of healing on the treated side. The rate of healing was correlated with the degree of vasodilatation, which was assessed by the increase in temperature, and increases of as great as 11° Fahrenheit were recorded. The temperature was recorded by using an electronic thermometer with surface thermocouple. This study showed quite clearly that wound healing could be accelerated by hypnotically-induced vasodilatation. Following this principle, it was hoped that the application of hypnosis to taste loss would also accelerate the rate of recovery in this condition.

CASE STUDY

Mrs M, a 55-year old lady, had a nasal polyp removed from her right nostril in 1992. The histology report stated that it was benign. Two years later, she developed enlarged glands on the right side of the neck, and on excision, histological examination showed a moderately differentiated squamous cell carcinoma. When the original slide was re-examined, it was found to contain areas of squamous cell carcinoma, which had previously not been detected.

Following the excision of the glands in the neck, Mrs M was given a 6-week course of radiotherapy. On admission to Edenhall Marie Curie Centre, she was given the hand-out pack containing information on facilities offered to patients. From this she discovered that hypnotherapy was one of the treatments available. Her main reason for wanting hypnosis was that she had lost all taste sensation as a result of the radiotherapy. She had suddenly become aware of how desperately important taste sensation was for her feeling of well-being. She had frequently given dinner parties in the past, and this was one of the things that had given her most pleasure in life. Coupled with her loss of taste, she also experienced some slight impairment of smell.

I first met Mrs M 18 days after she had completed her radiotherapy. Before commencing treatment, I always explain to the patient how hypnosis could be helpful to them. Mrs M was extremely enthusiastic to start hypnosis immediately. I decided to use the hand levitation technique. Although at first she was not a particularly good hypnosis subject, there was some movement of her right index finger, of which she was totally unaware.

She spontaneously pictured a dinner party, to which she wanted to invite her sister and two friends. Even in this first hypnosis session, she described the menu in minute detail, talking about a starter consisting of finely shredded lettuce, slivers of crispy bacon and avocado. Although she did not like desserts herself, she would prepare two puddings for her guests. We then discussed cheese and biscuits, and immediately she visualized a piece of blue Stilton, and some Gorgonzola, with coffee to follow. Finally, I gave her the post-hypnotic suggestion that she should carry out daily autohypnosis, using the word ‘calm’ as the association word. For the purpose of autohypnosis, I suggested that she should make herself comfortable, either sitting in a chair or lying down. After this, she should repeat the word ‘calm’ to herself a number of times. I indicated that she would need to practise this frequently, and assured her that she would quickly learn to hypnotize herself. After being hypnotized for the first time, Mrs M was not convinced that she had been hypnotized. This is not an infrequent finding on the first occasion. However, she agreed that her head felt light, and that the whole experience had been quite pleasant. It was decided that she should have regular sessions on a once-a-week basis, each session being of 75 minutes duration.

When Mrs M arrived for her second hypnosis session, she was very upset: she had asked about the prognosis of her condition, and she was told that she stood a 50:50 chance of being alive in five years’ time.

During the hypnosis, I asked Mrs M which food items she would like to think about, and she described an egg mayonnaise sandwich, and again she went through the preparation in great detail. She thought that she would rather like to have a glass of lager to go with it. After this, she wanted to describe the preparation of the evening meal: this was to consist of a cheese salad with a vinaigrette sauce, to which she would add some mustard and olives.

Two weeks after commencing therapy, Mrs M had detected an improvement as regards taste sensation. She had been able to enjoy a mushroom omelette, and also a vegetable risotto. Although she was somewhat cautious about her progress, she was pleased that she was increasing the number of food items she was able to eat and enjoy.

As far as wines were concerned, while normally she enjoyed dry wines, now she found them all rather sour, and she wondered whether she should try a sweeter wine. She had noticed that there had been no impairment to sweet taste sensation, particularly ice cream.

In this session, Mrs M was hypnotized for the third time, during which she described an evening meal consisting of roast chicken, roast potatoes, and a variety of steamed vegetables. This was followed by some matured cheddar cheese and water biscuits.

Three weeks after commencing therapy, Mrs M reported that she had been quite adventurous during the previous week, in that she had tackled fillet steak, chicken and pork.

She was delighted with her rate of progress, particularly as she had found eating meat exceptionally difficult due to the lack of saliva and the partial paralysis of her soft palate.

In the fourth hypnosis session, she described making a chicken salad so graphically that it made my mouth water. She then said that she would like to go to a workmen's café and order a full English breakfast, consisting of bacon, sausage, tomato, egg, and a mug of tea.

It was during this hypnosis session she told me that she had been invited out to dinner: she was rather disappointed to find that her taste sensation was not as good as it had been at home, and it occurred to me that we had been rehearsing the preparation and eating of meals in her own home, but not elsewhere. I felt that this could well be significant, and in view of this, I decided to include eating away from home into the treatment programme.

When Mrs M came for her sixth treatment session, she told me that she had coped very well at a Thai restaurant. Although she complained to her friend that she could not get much taste out of a prawn salad, the friend had pointed out that it was a great improvement that she was able to eat this at all.

In the hypnosis, Mrs M said that she could concentrate on one taste at a time, but found it much more difficult trying to cope with a mixture of different tastes. For this reason, she visualized a chicken risotto, and added a number of different ingredients to the mixture.

Mrs M was delighted with her progress, and compared with a few weeks earlier, her taste and appetite had improved remarkably. At one point, she had been offered some curried potatoes and curried chicken, both of which she had thoroughly enjoyed. She was particularly pleased that she could also enjoy drinking three glasses of Chablis.

When Mrs M arrived for her ninth hypnosis session, she told me that her life had become much more normal again. She had gone to the cinema, the theatre, and also

out for a meal. She had been able to enjoy an escalope of pork, ratatouille and a baked potato, although with the latter she had to scoop out the contents because she was unable to swallow the skin. While she said that her enjoyment of food was not yet perfect, she felt that she was making excellent progress, and that she had now reached the stage where she was able to try out new foods all the time. She no longer needed the hypnosis to aid with taste sensation, but she was keen to continue with it to work on other problem areas.

By this stage Mrs M had become an excellent hypnosis subject and had no problems in obtaining both visual and auditory imagery. Also she had acquired the ability to carry out autohypnosis.

Four months after commencing treatment, Mrs M said that as far as eating was concerned, she had no problems whatsoever. She felt that she had made a complete recovery as regards taste, and this was in spite of the fact that she still had considerable problems with salivation.

COMMENT

After only two hypnosis sessions, the patient had already started to improve as regards taste sensation. After receiving eight sessions of hypnosis, her taste was sufficiently restored for her not to require any more help with this.

The present study would suggest that the healing process as regards taste sensation was accelerated by the intervention of hypnosis. This would be in keeping with the findings of the Moore and Kaplan (1983) study on the accelerated healing of burns.

Although no direct suggestions were given to the patient as regards vasodilatation and increased warmth, it is possible that effects of this sort were responsible for the healing described in this patient. It is well-documented in the literature that hypnosis has the effect of increasing skin temperature, associated with vasodilatation, and this has been shown both clinically and experimentally (Grabowska, 1971).

While the Conger (1973) study stated that all patients recover taste sensation in about 60-120 days after cessation of radiotherapy, the Mossman *et al.* (1981) study showed that there were long-term effects from the radiation, not only as regards taste sensation, but also impairment of salivary function. There is a large discrepancy between these findings, considering that the patients in both studies were quite similar. One possible explanation could be that the dosage levels of irradiation were different, but in fact when looking at these two papers, it is found that the dosage levels are comparable with one another. However, it would seem that there are differences in the fields irradiated, and Tookman (personal communication) pointed out that in the Conger study, half to two-thirds of the tongue and palate were exposed to most or all of treatment, whereas in the Mossman study, every patient, apart from one, had at least three-quarters of the parotid gland and the gustatory tissues irradiated. This could well account for the difference in outcome in these two studies.

In keeping with the patient having received radiotherapy to the posterior part of the tongue, she only lost bitter and acid taste sensation, whereas sweet sensation remained intact. This corresponds to the distribution of the taste buds on the tongue (Ranson, 1959).

This case study also lends support to the view that taste sensation and salivary function are not directly related to one another. It would also suggest that hypnosis might well accelerate the rate of recovery of taste sensation in patients who have radiotherapy-induced loss of taste acuity.

Loss of taste acuity is found so frequently amongst patients who have received radiotherapy to the head and neck that it would be extremely helpful if a large controlled study could be carried out to evaluate the role of hypnosis in the healing process involved in the restoration of taste.

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