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Comparison of Conventional Therapies for Dentin Hypersensitivity Versus Medical Hypnosis

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COMPARISON OF CONVENTIONAL THERAPIES FOR DENTIN HYPERSENSITIVITY VERSUS MEDICAL HYPNOSIS

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Abstract: This study compared the efficacy of conventional treatments for dentin hypersensitivity (DHS) and hypnotherapy. During a 1-month period at an urban practice in a service area of approximately 22,000 inhabitants, all patients were examined. A total of 102 individuals were included in the evaluation. Values of 186 teeth were analyzed. The comparison of the different treatment methods (desensitizer, fluoridation, and hypnotherapy) did not show significant differences in success rates. However, a noticeable difference was observed in terms of onset and duration of effect. For both desensitizer and hypnotherapy treatments, onset of effect was very rapid. Compared to the other methods studied, hypnotherapy effects had the longest duration. In conclusion, hypnotherapy was as effective as other methods in the treatment of DHS.

Dentin hypersensitivity (DHS) is defined as a painful reaction triggered by a sensory stimulus. Hypersensitivity occurs when the dentin is exposed as a result of the loss of the protective enamel or cement layer (Addy & Pierce, 1994). Thermal, osmotic, chemical, and tactile stimuli are equally effective at triggering pain. Generally, the patient is able to clearly describe the localization of the pain. Experiences gained during daily practice as well as recent scientific publications show a steadily
increasing need for the treatment of hypersensitive teeth. Due to high pain intensity, affected patients look for quick alleviation. In particular, when thermal stimuli are triggers, it is primarily the cold stimulus that disturbs patients’ subjective well-being (Addy, Mostafa, & Newcombe, 1987).

Along with oral hygiene habits and periodontitis, abrasions, erosions, and patient-specific peculiarities such as incorrect teeth brushing (too intense, too often, brushes that are too hard, too much pressure) (Khocht, Simon, Person, & Denepitiya, 1993) are responsible for DHS. About 75%–90% of all hypersensitivities are related to teeth with periodontopathy (Addy, 2002; Dababneh, Khouri, & Addy, 1999).

The methods of treating DHS are highly varied. In addition to toothpastes and gels with fluoride, medical drugs with desensitizing effects—so called desensitizers—are being used as first-line agents (Blunck & Roulet, 1999; Kielbassa, Attin, Hellwig, & Schade-Brittinger, 1997; Nagatani, 1985; Yates, Newcombe, & Addy, 2004).

Fluoridating measures are those regularly taken for prophylaxis and aftercare (Rölla, Ögaard, & de Almeida Cru, 1993). In vitro and in vivo studies have demonstrated the effectiveness of desensitizers (Davidson & Suzuki, 1997; Davis, 1996; Felton, Bergenholtz, & Kanoy, 1991; Watanabe, Sano, Itoh, & Wakumoto, 1991).

In addition to orthodox treatment methods, an increasing number of practices employ procedures and methods of alternative medicine. Acupuncture, homeopathy, and hypnotherapy are just a few examples of such methods. Numerous studies confirm that hypnotherapy can play a major role in other dental disorders such as distinct choking stimulus (Eitner et al., 2006) and pain reduction during surgery (Eitner, Wichmann, & Holst, 2005).

The present study aimed to examine whether hypnotherapy can be considered an appropriate treatment for DHS. In cases of hypersensitivity, the pain has accomplished its physiological purpose—sending a signal—and may develop into a chronic condition unless some intervention takes place (Rainville, Bushnell, & Duncan, 2001). This is the basis for considering hypnotherapy as a tool in the relief of pain associated with DHS.

Based on the hypothesis that hypnotherapy would provide similar therapeutic success in patients with DHS compared with standardized pharmacological treatments, the objectives of the study are:

1. To detect differences in efficacy between treatment modalities;
2. To determine if the duration of DHS pretreatment has an effect on outcome;
3. To determine if hypnotherapy can be considered a valid treatment alternative for DHS;
4. To detect relationships between patient-specific factors and outcome, particularly concerning hypnotherapy.
Method

Participants

Participants consisted of all patients within our dental practice meeting the following criteria.

The patients were already part of the practice’s clientele and came either for a routine examination visit or with a specific request for treatment. Patients with acute pain coming to see the dentist were not included. All patients gave written consent to participate in the study. During their initial interview, the patients reported at least one sensitive tooth neck. The entire term of the study was 1 month; patient outcome was evaluated 1 day, 1 week, and 1 month after treatment initiation. When inspected clinically, the hypersensitive tooth necks appeared healthy and free of caries. Teeth with fillings did not have fillings of the tooth neck (as per Black’s Classifications of Carious Lesions – Class V).

Teeth with tooth-neck fillings or that had been treated prosthetically were not included. If several sensitive teeth were indicated during the initial interview, all teeth so indicated were evaluated. A control group of healthy patients were included; in these patients Teeth 15 and 35 were evaluated. Minors, pregnant women, emergency patients, and patients with a psychological/psychosomatic syndrome according to the World Health Organization’s International Classification of Diseases 10 (ICD 10) were excluded from the study.

To ensure random allocation, patients were given an internal serial number in the sequence of their appearance in the practice prior to obtaining any patient-specific data. Hence, Patients # 1, 5, 9, 13, etc. were assigned to the fluoridation group, Patients # 2, 6, 10, 14, etc. to the desensitizer group, Patients # 3, 7, 11, etc. to the hypnotherapy group, and Patients # 4, 8, 12, etc. to Control Group 1. This blind randomization was performed to avoid the selection of patients for hypnotherapy who were thought to be especially suggestible. Further, a second control group was formed (Control Group 2) consisting of patients without hypersensitivity; these patients went through the entire study protocol (Table 1).

Patient history, divided into four sections, was queried during the first visit. In the first section, sociodemographic data were taken, general medical data in the second section, and data about the patient’s dental health in the third section. The final section dealt with the reason for the visit, the duration of the hypersensitivities, and the subjective feeling during the office visit.

Suitable and internationally common indices were used for the findings sheet to allow for the comparability of the results with other studies. The findings sheet was divided into general results including approximate plaque index (API), sulcus bleeding index.
Table 1
Allocation of the Patients Into the Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Fluoridation</th>
<th>Desensitizer</th>
<th>Hypnotherapy</th>
<th>Control Group 1</th>
<th>Control Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>men/average age</td>
<td>10/45.0</td>
<td>11/44.5</td>
<td>10/43.6</td>
<td>11/41.5</td>
<td>11/37.3</td>
</tr>
<tr>
<td>women/average age</td>
<td>11/37.3</td>
<td>9/36.2</td>
<td>10/42.2</td>
<td>10/46.0</td>
<td>9/38.5</td>
</tr>
<tr>
<td>Therapy Hypersensitivity teeth</td>
<td>Hypersensitive teeth</td>
<td>Hypersensitive teeth</td>
<td>Hypersensitive teeth</td>
<td>Hypersensitive teeth</td>
<td>No</td>
</tr>
<tr>
<td>→Fluoridation</td>
<td>→Desensitizer</td>
<td>→Hypnotherapy</td>
<td>→Any therapy</td>
<td>→Any</td>
<td></td>
</tr>
</tbody>
</table>
A pain scale (visual analog scale) was made available to the patient to evaluate the individual sensation of pain. In addition to a numerical scale from 0 (no pain) to 10 (unbearable pain), the scale also contained a verbal subdivision.

Tooth-related results were filled in on the sheet for every affected tooth. The following parameters were considered: pain upon application of a cold stimulus defined in terms of duration and intensity, according to a pain scale from 0 to 10. This value was evaluated prior to therapy (SP), and 1 day (ST), 1 week (SW), and 1 month (SM) after therapy initiation.

The patient was further requested to evaluate changes in symptoms since the previous visit. The following changes were thereby evaluated in the form of a relative value between: (a) the beginning of the therapy and the following day (VPT); (b) 1 day after treatment initiation versus 1 week (VTW); (c) 1 week after initiation versus 1 month (VWM); and (d) symptoms at the initiation of treatment versus at the end of the study (VPM). The patient was asked to give a percentage estimate of the change in symptoms. Here, symptomatic improvement resulted in percentage values between 0 and 99; unchanged symptoms resulted in a value of 100, and worsening symptoms resulted in a value above 100.

Finally, the patient was asked about his or her satisfaction with the therapy and its effects. A yes/no determination was to be made. This value was taken 1 day (ZT), 1 week (ZW), and 1 month (ZM) after treatment initiation.

Before each therapy, the patients were instructed on oral hygiene so they would have similar cleaning techniques and knowledge of the relationship between hygiene and oral health. Group 1 patients (fluoridation) were treated by a single application of the affected teeth with Elmex Gelee® and a subsequent fluoridation at home with Elmex Sensitive Zahncreme®. The patients were requested to perform this therapy twice daily.

Group 2 patients (desensitizer) were treated once during their first visit with the standard desensitizer Gluma® (Fa. Heraeus Kluzer, Germany). The medication was applied under a rubber dam to the moist tooth surface and left for 30 seconds. Thereafter, the surface was first dried carefully by means of a stream of air and then flushed with ample water to remove any residue. The patients were instructed to refrain from eating and drinking for 30 minutes to avoid premature removal of the precipitate layer (Inoue et al., 1996). Patients were also asked to continue their individual oral hygiene habits for the duration of the study. No further treatment took place.
The sequence of a hypnotherapy session within Group 3 (hypnotherapy) followed strict rules:

1. Preliminary discussion;
2. Introduction or induction phase;
3. Consolidation or deepening phase;
4. Therapy or intervention phase;
5. Finishing phase;
6. Follow-up discussion.

In the introduction phase, a suitable treatment situation, the setting, was created. Possible disturbing factors such as space restrictions or noise were eliminated. In the deepening phase, the relaxation process was reinforced by continuing suggestions.

The actual medical therapy was performed during the therapy phase. In this phase, the patient was kept in the relaxed state achieved thus far by means of specific and targeted instructions. In doing so, the treatment’s success could be extended to the time following the session through specific stimulants and posthypnotic suggestions.

After therapy, the relaxed state was abandoned and the patient’s concentration was redirected to the real environment. Thereby, the hypnotherapeutic context is left.

The patients were treated during this study with a standardized text of 10 to 15 minutes. First came the hypnotic induction via sight/vision fixation and its deepening via a brief body journey, quite similar to relaxation through self-hypnosis. In this connection, the therapist created suggestions for all the patient’s senses (visual, acoustic, kinesthetic-sensory, olfactory). As soon as the trance was sufficiently deep, the text was read to the patient word for word.

The hypnotherapeutic text included the following. The character “—” in the text indicates a required pause in order to create the therapeutic connection—the rapport—in an optimum manner:

I would like to ask you — to direct your whole attention to the areas in your mouth — that are uncomfortable and painful for you. — I would like to ask you — and now — I would like to direct a part of your attention — to introduce once to you how it could be — if you covered each of the limited, disagreeable areas, — cover them with a protective coating so that everything disagreeable and annoying is kept away from this place/these places. And sometimes — one is able to do this to himself using his imagination like a winter coat, snug, warm, and thick— only you can succeed in imagining how your separated area can cut itself off, like being under a cover or under a coat, simply and easily from all external disturbing events. — Simply insulate! Thus it feels good! — (SO IT IS A PROPERTY) — And even if the cold and the disagreeable event is still there, you will manage it with the thought of this ability of your body — with every spot where you do this the disturbance becomes less and less
— to feel, still feel more and more. — In the certainty of all these important and necessary things I have just said, you can at any time remind yourself of them. Now — I would like to ask you to close all your internal pictures to return — and in a few breathes return to me here in this space from which we began.

The finishing phase began thereafter. The patients were requested to continue their usual oral hygiene habits at home during the study.

The first control group consisted of patients who had hypersensitive teeth during the initial diagnosis. These patients were requested to continue the oral hygiene measures in which they were trained; no further treatment took place. Some studies show that spontaneous remission of DHS may occur with time.

Control Group 2 consisted of patients without DHS who went through the test protocol. Like Control Group 1, these patients were requested to continue their usual oral hygiene habits at home during the study.

The data gained from the various result sheets were input into the SPSS Student Version 10.0 program. The evaluation was performed with SPSS and Excel 2002. In addition to descriptive statistics, the following analyses were employed:

- The Mann-Whitney U Test for comparison of scores between two groups;
- The Fisher exact test to compare the differences between groups;
- The Kruskal-Wallis Test at a low amount of the group.

Spearman’s coefficient ($r_S$) indicates the degree of correlation. The level of significance for all tests was set at 5%. All results with a $p$ value < .05 were considered significant.

The coefficient of correlation, $r_s$, varies from −1 and +1. A value up to .5 signifies a low correlation, a value between .5 and .7 indicates a medium correlation, a value between .7 and .9 indicates a high correlation, and a value above .9 represents a very high correlation.

**Results**

A total of 102 patients were included. Average age of the patients was 41.3 years. There were 53 males (average age = 42.3 yrs.) and 49 females (average age = 40.1 yrs).

Duration of sensitivity: 10 patients (7 male, 3 female) first experienced hypersensitivity on the day of their visit to the practice, 41 patients (21 male, 20 female) had been suffering with hypersensitivity for up to 1 week before their visit. Five male and 9 female patients had been suffering with hypersensitivity for 1 to 2 weeks prior to their visit. Seventeen patients (9 male, 8 female) stated that they had been
suffering for more than 14 days before their visit. The 20 patients in Control Group 2 (11 male, 9 female) did not report any teeth sensitivity (Figure 1).

When asked about feelings during the visit at the dentist’s office (“What do you feel during your visit at the dentist’s?”), 16.7% said they were relaxed during their visit; 28.4% felt “a little uncomfortable”; and 25.5% said they were tense during their visit. A total of 27.5% said they were apprehensive, and 2 patients said that they felt sick from fear during their visit (Figure 2).

Among the 82 patients in the three therapy groups and Control Group 1, a total of 146 hypersensitive teeth were diagnosed. Within Control Group 2 (20 patients) a total of 40 teeth were evaluated as per the same criteria, resulting in a total of 186 teeth for which data were gathered and evaluated. On average, each patient had two hypersensitive teeth during the initial diagnosis. The maximum number of affected teeth to be diagnosed in a single patient was three.

In determining whether therapeutic success was related to the duration of hypersensitivity prior to enrollment, the following was found: Within the fluoridation group (Figure 3), if therapy began within a maximum of 2 weeks from the first occurrence of the symptoms, pain reduction was satisfactory in 22 patients (59.4%), while no success was achieved in 9 cases (24.3%). If therapy began at a later time, the ratio of satisfied to unsatisfied patients was 2 (5.4%) to 4 (10.8%).

Within the desensitizer group (Figure 4), if therapy started within 2 weeks, 12 patients were satisfied (32.4%) versus 8 unsatisfied (21.6%). If therapy started at a later time, the ratio was 10 (27%) to 7 (18.9%).
Within the hypnotherapy group (Figure 5), if therapy began within the first week following symptom development, there were 21 successful treatments (56.7%) and 6 unsuccessful treatments (16.2%). If therapy started at a later time, the ratio was 4 successful treatments (10.8%) to 6 failed treatments (16.2%).
Within Control Group 1 there were 5 successful (14.3%) and 3 unsuccessful cases (37.1%) when therapy was initiated within 1 week of onset. When entering the study at a later time, 9 (25.7%) patients reported successful pain reduction and 8 (22.8%) reported failure.

There was no significant correlation between the timing of therapy initiation and therapeutic success in any group. However, there was a
trend towards better pain relief with earlier therapy. In order to clarify the correlation between the patient’s initial stress level and changes of the subjective pain values, the difference between the initial pain values and the final pain values was correlated to the stress value.

Within the fluoridation group, the absolute pain values improved by an average of 2.27 points with treatment; within the desensitizer group, they improved by an average of 2.86 points. The hypnotherapy group had the greatest reduction in pain, 2.89 points, while Control Group 1 had the least improvement, 1.6 points (Figure 6).

The absolute initial stress value within the desensitizer group was 1.5 points; the value was 1.19 points within Control Group 1. The highest average initial stress value of 1.71 points was observed in the fluoridation group; the lowest value of 0.9 points was found within the hypnotherapy group. A significant correlation between the change in subjective pain values and initial stress level (SL) could be detected for the desensitizer group ($p = 0.003$) and the hypnotherapy group ($p = 0.017$; Table 2).

Due to the low number of sample surveys, the Kruskal-Wallis test was used to analyze the relation between the treatment methods and the changes in the subjective pain values for every affected tooth. There were no significant differences in pain value changes between treatment groups; however, there was a significant difference ($p = 0.017$) in treatment groups versus Control Group 1. The difference between the initial value (SP) and the value at the end of the study (SM) indicated individual pain improvement. A negative value indicated worsening of pain while a positive value showed improvement; a value of 0 was
Table 2

<table>
<thead>
<tr>
<th></th>
<th>Fluoridation</th>
<th>Desensitizer</th>
<th>Hypnotherapy</th>
<th>Control 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø SL</td>
<td>1.71</td>
<td>1.5</td>
<td>0.9</td>
<td>1.19</td>
</tr>
<tr>
<td>p</td>
<td>.818</td>
<td>.003</td>
<td>.017</td>
<td>.248</td>
</tr>
<tr>
<td>rs</td>
<td>−.039</td>
<td>−.473</td>
<td>.391</td>
<td>−.201</td>
</tr>
</tbody>
</table>

no change in pain. The fluoridation group is the only group showing a worsening of pain and an improvement peak on a level of 2 to 4. The other therapies and Control Group 1 show improvement peaks on a level of 6 and higher.

When applying the Kruskal-Wallis test, the median value was 73.43 within the fluoridation group, 82.78 within the desensitizer group, 81.77 within the hypnotherapy group, and 55.01 within Control Group 1. No significant difference in pain development was found between the three therapy groups.

Differences became apparent between the therapy groups in terms of time-related improvement in VPT, VTW, and VWM (Figure 7). Initially, patients in the fluoridation and control groups experienced no improvement. Later in the study, their improvement values approached those of the two other groups (desensitizer and hypnotherapy).

Figure 7. Percentage changes in pain improvement score compared to prior visit; negative values show worsening, positive values improvement.
Table 3

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Satisfaction After 1 Day (ZT)</th>
<th>Satisfaction After 1 Week (ZW)</th>
<th>Satisfaction After 1 Month (ZM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluoridation</td>
<td>16.2%</td>
<td>43.2%</td>
<td>64.9%</td>
</tr>
<tr>
<td>Desensitizer</td>
<td>91.9%</td>
<td>83.8%</td>
<td>59.5%</td>
</tr>
<tr>
<td>Hypnotherapy</td>
<td>70.3%</td>
<td>67.6%</td>
<td>67.6%</td>
</tr>
<tr>
<td>Control Group 1</td>
<td>0.0%</td>
<td>37.1%</td>
<td>40.0%</td>
</tr>
</tbody>
</table>

The desensitizer group experienced distinct improvements after only 1 day; however, a clear decline of the effect was observed after 1 month. Like the desensitizer group, the hypnotherapy group showed a prompt onset of the effects; however, a significantly longer duration of the effects was found in the latter group.

Examination of the relationship between therapy success (satisfaction values of the patients; Table 3) and the selected therapy method demonstrated distinct differences in the duration of patients’ satisfaction. Thirty-four of 37 patients in the desensitizer group and 26 of 37 patients in the hypnotherapy group were satisfied with the result of the treatment after only 1 day. Only 6 of 37 patients in the fluoridation group considered the treatment as successful after 1 day. All 35 patients in Control Group 1 were unsatisfied with therapy results after 1 day.

By the end of the study the satisfaction values of all groups were more similar. After 1 month, 22 of 37 desensitizer group patients, 25 of 37 hypnotherapy group patients, and 24 of 37 fluoridation group patients were satisfied with the results of therapy. Only the control group showed a lesser degree of satisfaction with only 14 of 35 patients being satisfied.

**Discussion**

In total, 102 patients at an urban dental practice were examined in the course of this study. For the first time, the standardized treatment procedures for dentin hypersensitivity, desensitizers, and fluoridation were compared to medical hypnosis. Along with medical and sociological history, facts regarding oral hygiene behavior were gathered. In addition, the course and success rate of the respective therapies were evaluated. Internationally applied and scientifically sound indices were ascertained in order to evaluate oral health.
About one-fifth of the patients only visited the practice because of acute pain; this number is in line with the number of patients describing themselves as being apprehensive.

It is apparent that an earlier initiation of therapy tended to improve outcome. In the case of the fluoridation group, this result is in line with the 1998 examination by West, Addy, and Hughes, in which they demonstrated that the application of fluoride tooth cream significantly reduced DHS, while the discontinuation of such treatment resulted in deterioration. The same results were confirmed in Hellwig’s 1992 study. With desensitizer treatment, success related to time of treatment initiation has been reported. In 1991, Felton et al. showed that a single topical application led to a significant reduction in DHS. Likewise, Blunck and Roulet in 1999 showed the same results and emphasized that Gluma® was a simple and effective therapeutic means for treating DHS. Regarding hypnotherapy, this is the first published report of its effects in DHS; therefore, no comparable information could be found in the literature.

Studies evaluating the efficacy of hypnotherapy in the treatment of pain in general have solidly proven its utility in other pain syndromes, including its use as adjunctive therapy (Montgomery, DuHamel, & Redd, 2000; Montgomery, David, Winkel, Silverstein, & Bovbjerg, 2002; Patterson, 2001).

In particular, studies by Eitner et al. (2005, 2006) scientifically proved the effectiveness of hypnotherapy in dentistry. The suggestions used in the standardized text primarily aimed to change pain sensitivity, since the pain of DHS loses its signaling effect after only a short period of time (Haythornthwaite & Benrud-Larson, 2001).

The present study could not prove any significant relation between the patient’s initial stress level and changes in the individual stress values. Thus, the assumption of stress having an impact on the subjective pain sensation was not proven by this study.

Analysis of the relationship between therapy type and changes in subjective pain sensation revealed significant effects of all therapies compared to controls. This finding agrees with the 1987 Addy et al. study, which reported a significant reduction of DHS after 6 weeks of fluoridation. With respect to the Gluma group, our results correspond to the results of Davidson and Suzuki (1997), Inoue et al. (1996), and Dondi Dall’Orologio and Malferrari (1993), all of whom showed significant pain reduction compared to controls.

On one hand, hypnotherapy effects are caused in part by changes in pain sensation as described by Montgomery et al. (2000). However, they are also caused by a change in the neurophysiological development of chronic pain (Hunter, 1996).

Finally, an evaluation was made of the relation between the development of the improvement values VPT, VTW, and VWM in terms of time...
and selected therapy method. Here, the different forms of treatment showed significant differences. The delayed improvement in the fluoridation group is caused by the relatively slow mechanism of action, as shown by West et al. (1998) (improvement was seen within 4 to 6 weeks). During the present study, patients reported improvement after 1 month.

Results were different in the desensitizer group. A total of 91.9% of the patients were satisfied with treatment after 1 day. This result was also reported by Dondi Dall’Orlologio and Malferrai (1993) and Inoue et al. (1996). In the latter study, 79% of the teeth were either pain free or had significantly improved 15 minutes following a single application.

In contrast to this study, where after 1 month a slight worsening of the satisfaction values was observed, the effect of the medication used in the Inoue et al. (1996) study lasted for at least 8 weeks. In the Davidson and Suzuki study (1997), about 50% of the examined teeth showed DHS again after 1 year. One explanation for the quick decrease of the medication’s effect in our study may be a possible uneven palpation of the affected areas. Another explanation may be related to the initial pain level. Despite the worsening of symptoms in some patients, 59.5% were still satisfied with therapy after 1 month.

A rapid effect could also be observed within the hypnotherapy group. This is mainly due to the suggestions that change the patient’s pain sensation and direct the patient’s attention. Also, the suggestion of covering the pain with a coat (cf. hypnotherapy text) may have played a role. After 1 day, 70.3% of the patients were satisfied. This quick change of perception was previously described by Eitner et al. (2005) in patients with a distinct choking reflex. Burk (1986) reported a rapid effect of hypnotherapy in painful dental surgery. Through the therapy the patient learns an effective subjective pain management as already described by Reindl (1986). This explains the fact that this therapy was exclusively able to maintain the initial satisfaction level over the entire course of the trial. Even at the end of the study, 67.6% of hypnotherapy patients were still satisfied with their treatment.

Initial stress level was not found to have an impact in patients treated with hypnotherapy. Compared to pharmacological therapies for an organic problem, a high psychological input in the form of stress could be expected. Due to the lack of stress impact, it appears that hypnotic pain modulation has priority. Therefore, this study could not provide general evidence for the assumption that stress may influence subjective pain sensation.

The development within Control Group 1 is of particular interest in this regard. Despite the lack of treatment, 40% of patients reported satisfaction at the end of the study. This can certainly be considered evidence of the spontaneous healing tendency of the odontoblasts, which begin forming irritation dentin after sufficient chronic stimulation.
(Pashley & Walton, 1994). On the other hand, this result may also be explained by altered neurophysiologic perception of the pain (Hunter, 1996).

CONCLUSION

In addition to the standard medical therapies, hypnotherapy can also be considered an appropriate means for treating DHS. The significance of the study may be emphasized by the fact that the effect profile of the applied standard forms of therapy corresponds with those of other scientific examinations. The effect profile of hypnotherapy, which was investigated here for the first time, does not differ significantly from that of standard pharmacological methods and appears more successful by some parameters. Hypnotherapy can, therefore, be considered an equivalent of standard pharmacological methods. Due to the time required, its application should be limited to patients with hypnotherapy experience and those wishing to avoid pharmacological treatment. Finally, validation of our results with a larger study is warranted.

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Vergleich konventioneller Therapien und medizinischer Hypnose gegen Dentinüberempfindlichkeit

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Hypersensibilité dentinaire: Thérapies classiques vs hypnose médicale

Stephan Eitner, Christian Bittner, Manfred Wichmann, Hans-Joachim Nickenig et Biljana Sokol

Résumé: Cette étude porte sur la comparaison entre l’efficacité des thérapies classiques et celle de l’hypnothérapie dans le traitement de l’hypersensibilité dentinaire (HSD). Les patients d’un cabinet dentaire situé dans un milieu urbain comptant environ 22 000 habitants ont été examinés durant une période de un (1) mois. L’évaluation portait sur 102 personnes et les données relatives à 186 dents ont été analysées. La comparaison entre les taux de succès des différentes méthodes de traitement (désensibilisation, fluoración et hypnothérapie) n’a présenté aucune différence significative. Une distinction notable a toutefois été observée dans le délai d’action du traitement et dans la durée de l’effet obtenu. Le délai d’action du traitement était très rapide, tant dans le cas des désensibilisants que dans celui de l’hypnothérapie. Comparativement aux autres méthodes étudiées, les effets de l’hypnothérapie étaient les plus durables. En conclusion, l’hypnothérapie était aussi efficace que d’autres méthodes dans le traitement de l’HSD.

Johanne Reynault
C. Tr. (STIBC)
Comparación de las terapias convencionales para la hipersensibilidad a la dentina versus hipnosis médica

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Resumen: Este estudio comparó la eficacia de los tratamientos convencionales para la hipersensibilidad a la dentina (HD) y la hipnoterapia. Durante un período de 1 mes en un consultorio urbano en un área de servicio de aproximadamente 22.000 habitantes, examinamos a todos los pacientes. Evaluamos a un total de 102 individuos, incluyendo 186 dientes. La comparación de los diferentes métodos de tratamiento (desensibilizante, fluoridización, e hipnoterapia) no mostraron diferencias significativas en las tasas de éxito. Sin embargo, observamos una diferencia notable en términos de principio y duración del efecto. Para los tratamientos desensibilizante y de hipnoterapia, el inicio del efecto fue muy rápido. En comparación con los otros métodos estudiados, los efectos de la hipnoterapia tuvieron una duración más larga. En conclusión, la hipnoterapia fue tan eficaz como otros métodos en el tratamiento de la HD.

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