IN BRIEF

- Phantom bite is an uncommon condition in which the patient is preoccupied with the dental occlusion.
- Specific recommendations for the management of phantom bite are provided.
- The nature of phantom bite is described.
- Knowledge of the condition may help to avoid provision of unnecessary treatments.

Phantom bite revisited

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The term 'phantom bite' is used to describe an uncommon condition in which patients are preoccupied with their dental occlusion, believing that it is abnormal. The condition is remarkable for the nature of the involved explanations and interpretations that the patients give and for their persistence in trying to find a solution to what appears to be a relatively minor problem.

Three clinical cases that illustrate the nature of this condition are presented and problems associated with the management of affected patients are discussed.

Phantom bite can be a disabling disorder which is difficult to treat. Available evidence suggests that the symptoms cannot be improved by occlusal treatments. It is therefore essential to avoid extensive irreversible restorative treatment. General dental practitioners should refer patients for specialist opinion and management.

Psychiatric assessment with recommendations for management should be obtained if possible. The prognosis is poor for symptom elimination but need not necessarily be poor for patients' overall functioning and well-being. It is suggested that emphasis should be placed on building adaptive coping skills. Further research is needed to elucidate the nature of the condition to improve treatment.

INTRODUCTION

The term 'phantom bite' was first coined by Marbach[1] to describe a condition in which patients are preoccupied with their dental occlusion, believing that it is abnormal. The typical features of phantom bite were described as a history, often present for many years, starting at any age following significant dental treatment, for example orthodontics, crown or bridgework. Usually the first dentist is remembered as competent and producing results that were almost perfect but containing a flaw that makes further treatment necessary. Subsequent dentists succeed only in making the problem worse and are usually described as incompetent.

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At the initial assessment visit the patients describe the objectives and types of previous treatments, why they have failed and what they consider to be necessary to correct the problem. This is usually explained in considerable detail and often reiterated in lengthy letters. Examination of the dental occlusion fails to reveal occlusal contacts that explain the level of distress expressed by the patient.

Marbach[1-3] originally considered phantom bite to be a form of monosymptomatic hypochondriacal psychosis (MHP). This is an uncommon psychiatric disorder in which a single delusion, or unshakable false belief, is the only symptom of the disorder. Although there is little published on phantom bite besides the work of Marbach, anecdotal reports suggest that patients who present with complaints attributable to the dental occlusion and whose demands seem unreasonable are not uncommon and that such patients will be seen by most dentists, in particular by specialists.

We present below three clinical cases of patients who presented with symptoms similar to those described by Marbach that illustrate the nature of this condition, and discuss problems associated with the management of affected patients.

CASE REPORTS

Case one

Mr RG, a 41-year-old craftsman, was referred by a consultant in restorative dentistry at another hospital for a further opinion and recommendations for treatment.

He complained of the bite 'feeling wrong'. He said that his jaw 'was always wandering around looking for a comfortable position' which he found very irritating. He also complained of intermittent pre-auricular pain and limitation of opening the mouth. Previous dentists had attempted to address the problem by placing fillings, crowning some of the teeth and by grinding the occlusal surfaces of the teeth. Details of treatment that he had received and suggestions for treatment were given at length. (Later, following examination, he became extremely aggressive when he was informed that the occlusion appeared to be 'normal')

The problem had been present since he had an extensive course of dental treatment some years previously. The dentist was said to have done a good job but had left a problem with the bite. Treatment by two successive dentists had only succeeded in making the problem worse. He was angry with those dentists although he was happy with his present dentist, who had referred him for specialist care.

Although the patient gave no relevant medical history, later correspondence revealed previous episodes of bizarre behaviour that were considered to be either drug-related or symptoms of a psychotic disorder. He was not taking any medication.

Examination revealed bilateral tenderness to palpation of masseter and temporalis muscles. The dental occlusion was intact with no significant occlusal interferences. A diagnosis of TMD (facial arthromyalgia) and phantom bite /occlusal hyperawareness was made.

A psychiatric opinion was obtained which indicated that the patient had an underlying personality disorder with marked obsessionality.

The facial pain responded to the use of a full coverage acrylic resin occlusal stabilising splint. The patient said that he was unable to say whether the bite felt comfortable when the splint was worn. Minimal occlusal treatments failed to provide improvement in the sensation of an uncomfortable bite. He was referred for psychiatric management closer to his home but was lost to follow-up.

Case two

Mr CP, a 40-year-old metrologist technician, complained of facial asymmetry, an irregular occlusion and facial pain and temporal headaches.

The symptoms were said to have begun approximately three years previously. The facial pain and headache had been severe but had become less so. He believed that the problem was a result of the jaw being pulled out of place during a difficult extraction when he was young. He had had an operation to reduce the bulk of the masseter muscle. Maxillofacial surgeons had considered that his facial asymmetry was within normal limits. He said that as a result of the symptoms he had become isolated, did not go out other than to work. He admitted to feeling depressed and at times very depressed.

Examination revealed tenderness to palpation of masseter muscles and right temporalis muscle. There was also slight hypertrophy of the masseter muscle. The dental occlusion was intact with no significant interferences in the retruded contact position. A diagnosis of TMD (facial arthromyalgia), masseteric hypertrophy and phantom bite/occlusal hyperawareness was made.

A psychiatric opinion was obtained. It was noted that Mr CP gave the history of the complaints in a circumstantial manner and in great detail. He found it difficult to continue the thread of thought if interrupted. He had a tendency to use medical and dental jargon and it was difficult to get him to give short clear answers. The psychiatrist found that he fulfilled DSM-IV criteria[4] for a diagnosis of major depression as well as significant obsessive-compulsive personality traits. Apart from the complaints about his occlusion, there was no evidence of any psychotic or bizarre beliefs. However he admitted to feeling suicidal as a result of his occlusal problems.

It was recommended that firstly he should continue dental treatment by one of the dental team. He should be discouraged from seeking more opinions. Secondly he should receive psychiatric care for his mental disorders, in particular for the depressive disorder. During the course of his dental visits both the psychiatrist and dentist received letters from the patient's mother about her concern that he was becoming increasingly depressed and could be suicidal.

An explanation was given that the occlusal problem was a disorder of perception or a hyperawareness (although he did not accept the explanation). He was provided with an occlusal splint and the TMD pain improved. A copy of the psychiatric assessment was sent to the patient's general practitioner in order that psychiatric referral and treatment could be arranged. He was prescribed several different antidepressants but he insisted that he could not tolerate any of them even at very low doses. He continues to attend the clinic for dental care but although he no longer focuses on complaints of facial asymmetry and an uneven dental bite he has admitted to using the internet to investigate whether there is a surgeon in the USA who might be prepared to provide him with treatment.

Case three

Mrs SG, a 55-year-old teacher, complained of facial pain and an uneven dental bite.

The symptoms were said to have started two years previously following treatment of a fractured mandibular molar tooth by means of a porcelain-bonded crown.

The history, however, was very difficult to obtain and she tended to elaborate and interpret aetiologies.

The patient was extremely resentful of the first dentist and was threatening litigation.

Another dentist had replaced the crown, which had succeeded in providing considerable improvement of the pain. That dentist referred Mrs SG. She was also extremely resentful of his inability to treat her occlusion.

Examination revealed slight tenderness to percussion of LR6 (46) and bilateral tenderness to palpation of the masseter muscles. The dental occlusion was intact with no significant interferences. It was considered that Mrs SG experienced dental pain due to pulpitis of LR6 (46). The facial pain was due to TMD (facial arthromyalgia). The history, signs and symptoms of occlusal unevenness was consistent with a diagnosis of phantom bite / occlusal hyperawareness. The diagnoses were discussed but she did not accept the explanation regarding the occlusion.

The patient met the liaison psychiatrist but declined assessment and was unwilling to enter into any kind of discussion outside her dental complaints. She insisted that 'you are all very qualified I'm sure, but I know what I need and that's all I want'. Although she was smiling throughout the interview she was very hostile. In this case it was not possible to obtain a full psychiatric opinion but there were indications of paranoid personality traits.

No further appointments were made but she clearly declared her intention to seek elsewhere for a solution to the occlusal problem and to continue litigation against the dentist.

DISCUSSION

Although it is usually stated that phantom bite is a rare condition and the actual prevalence of the disorder is not known, it would appear to be much more common than reported and most restorative dentistry specialists will have seen patients with the disorder.

These three cases illustrate the degree to which affected patients suffer. The condition is remarkable for the nature of the involved explanations and interpretations that the patients give and for their persistence in trying to find a solution to what appears to be a relatively minor problem. Long, involved, explanatory letters describing the background, believed aetiology and proposed solutions are sometimes sent by the patient. In that respect they are very similar to those cases described by Marbach.[5]

It is of interest that all three patients experienced facial pain related to TMD/facial arthromyalgia. The pain resolved for both patient one and patient two following the fitting of a full coverage occlusal stabilising splint, unlike the sensation of occlusal abnormality that remained.

Marbach at first considered phantom bite to be a form of monosymptomatic hypochondriacal psychosis (MHP), which is an uncommon psychiatric disorder, in which remarkably the single delusion is the

only symptom of the disorder.[6] Marbach believed that 'family, friends and dentists are viewed by patients only as objects to gratify themselves' and that pathological narcissism takes the form of 'tedious', verbal and written monologues about the details of the dental problems and treatment (which further alienate them from individuals around them)'. Marbach's interpretation is consistent with the psychodynamic explanation of other somatic delusions, namely that they represent a regression to the infantile narcissistic state in which patients withdraw emotional involvement from other people and fixate on their physical selves.[7] MHP differs from other hypochondriacal symptoms in the degree of reality impairment. In hypochondriasis patients are focused on health problems but they are reassured by the dentist's explanation to a greater or lesser degree. In a delusional condition however, there is a fixed false belief which is unshakeable by any explanation. Ascribing a psychiatric diagnosis of 'obsessional' disorders to these patients is not very helpful and somewhat tautologous as the presenting symptom is a recurrent, intrusive idea or sensation, ie an obsession.

Marbach[8] later revised his opinion of the nature of the condition and considered that it might be a true 'phantom' phenomenon akin to phantom syndromes which occur following amputation or injury. These phantom phenomena have been explained by changes occurring as a result of the plasticity of the brain. When a lesion is made such that a person loses sensation from a particular area (as happens in, for example, limb amputation) the region of the cortex innervated by these missing nerves loses its input. After being silent for several weeks the cortical area can be activated again by other axons. The reorganised cortex can then continue to infer the existence of the missing part.[9]

Klineberg[10] also proposed that phantom bite might have a physical component. He suggested that the phantom bite could be considered as an occlusal hyper-awareness or an 'iatrogenic dysproproception'. Following changes in the dental occlusion it is necessary to adapt to or re-learn new jaw movements. He suggested that phantom bite patients suffer because they are unable to adapt to even small changes in the dental occlusion. Our present understanding of the cognitive neurobiological underpinning of abnormal phenomenology is now greatly increasing with recent developments in functional neuro-imaging.[11] Specific delusions may really describe abnormalities of experience and reflect abnormalities of discrete brain systems.

The three cases described illustrate the difficulties that are encountered in trying to manage patients with this complex and poorly understood disorder.

Recommendations for management

The prognosis for eliminating the phantom bite patient's perception of an occlusal problem is poor, although accurate information regarding subsequent persistence of the symptoms is not available. Because the aetiology of the condition is still uncertain, treatment is at best empirical. Patients with MHP will not generally accept medication but pimozide is a drug that has been shown to be effective in managing MHP when other anti-psychotic medications have been ineffective.[12] However, there is no clear evidence at present that patients with phantom bite benefit from pimozide.

A psychiatric opinion is helpful although impractical in the setting of general dental practice and patients will not readily accept such a referral even in a hospital setting. In this respect a multidisciplinary dental clinic with liaison psychiatry input is valuable, providing immediate access to an opinion in the clinic setting. As in the management of somatoform disorders, it is important to work with a mental health professional towards improving patients' overall levels of functioning by building adaptive coping behaviours. For instance, the goal for a patient may be switched from seeking a solution to the perceived malocclusion to coping with it and learning to focus on other aspects of life. Eventually, with successful treatment the delusion becomes 'encapsulated' and although the individual still believes that there is an occlusal problem, it stops being the main focus of attention and thus treatment seeking behaviour also diminishes.

In summary, phantom bite can be a disabling disorder which is difficult to treat. With respect to managing phantom bite patients the following specific points are of importance

1. The prognosis is poor for symptom elimination but need not necessarily be poor for patients' overall functioning and well-being.
2. Dentists attempting to treat the problem with rational counter-arguments will become entangled in protracted discussions.
3. Reversible treatment in the form of an occlusal splint appears to help provide relief from facial pain due to TMD.
4. Available evidence suggests that the symptoms cannot be improved by occlusal treatments. It is therefore essential to avoid extensive irreversible restorative treatment.
5. Pimozide may be helpful as part of the management.
6. Emphasis should be placed on building adaptive coping skills.
7. General dental practitioners should refer patients for specialist opinion and management.
8. Psychiatric assessment with recommendations for management should be obtained if possible.
9. Further research is needed to elucidate the nature of the condition to improve treatment.

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