

Management of chronic orofacial pain: attitudes among patients and dentists in a Swedish county

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The purpose was to survey attitudes towards management of chronic orofacial pain (COP). Questionnaires were mailed to 30 randomized dentists and to 30 consecutive COP patients, examined 16 months earlier by a pain group of dental specialists. Fifty-seven per cent of the patients reported that their pain was the same as or worse than before and was disturbing. Few were dissatisfied with the examinations. Fifty-nine per cent thought that the consultations had been good. The surveyed dentists judged the most common causes of COP to be neurogenic and psychogenic in origin: they were overwhelmingly positive to the idea of a pain group (93%) and could consider referring patients (97%). Pain-inducing local diseases occurred but were not dominant among these COP patients. We concluded that management of COP in a pain group appears to be meaningful, as reflected by the respondents' attitudes but would gain by a closer collaboration with medical expertise. **□ Dental health surveys: facial pain: intractable pain: toothache**

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Dental pain and pain in the orofacial area among dental patients can be successfully diagnosed and managed in the vast majority of cases. In a small fraction, however, any diagnosis for pain supposed to emanate from the teeth, jaws, or surrounding areas is never established. Relatively rare painful conditions of non-dental origin such as facial vascular pain or neuralgias might be disregarded initially, but a somatic cause is sometimes never confirmed clinically or radiologically. Moreover, some patients do not respond favorably to what appears to be appropriate dental treatment of pain (1).

A small, but demanding, minority of dental patients therefore constitute a group with chronic orofacial pain (COP) with obscure etiology. Such infrequent painful conditions are often considered time-consuming, challenging, and frustrating to manage and therefore particularly trying for individual primary clinicians. Special pain groups, consisting of different dental specialists, have sometimes been organized to manage COP patients. Pain relief and treatment are not necessarily a realistic ultimate goal for such a group but rather the establishment of a diagnosis, if possible, or the exclusion of dental causes with subsequent referral to medical expertise when appropriate. The group's purpose is thus twofold: to give the patient optimum attention from all relevant aspects and to support the treating dentist. A consultation should always conclude with a well-founded second opinion. Working methods of dental pain groups have been described, as have patient characteristics and treatment outcome (2-4).

Clinical experience and the literature both suggest

that treatment of COP patients is often unrewarding (5, 6). COP patients might differ from acute pain patients not only regarding pain duration but also in several other dimensions. Systematic data about how patients and dentists assess COP and its management are limited, however.

In this survey certain demographic and pain characteristics in a series of consecutive COP patients, referred to a pain group of dental specialists, will be systematically described. The main purpose is to elucidate, retrospectively, by questionnaire how the patients evaluated the consultation and how dentists in one Swedish county comprehend COP and the benefit of such a group.

Materials and methods

The pain group, active for the past 3½ years, consisted of four specialists, one each in endodontology, oral radiology, oral surgery, and temporomandibular disorders, who were all employed in the Public Dental Service, Mölndal Hospital, Mölndal. The study area, Bohus County, has a mixed population, both rural and urban, and 320,000 inhabitants.

Each COP patient referred to the pain group was evaluated jointly by the four specialists. A comprehensive, detailed, semistructured interview concerning the patient's pain, previous treatment, state of health, and social conditions was performed. Each patient underwent a clinical examination of the teeth and periodontium, oral mucous membrane, orofacial motor activity and tactual sensation, salivary function, masti-

catory muscles, and temporomandibular joints. Pertinent existing radiographs were reviewed and, in most cases, supplemented.

Thirty consecutive COP patients, evaluated over a 39-month period, were included in the study. All had been referred to the pain group owing to persistent pain.

A systematic record concerning the patients' relevant data was drawn up from existing files.

Questionnaires were mailed to each patient. The eight questions asked of the patients concerned their pain and the former consultation. One multiple-choice question dealt with present pain (Table 1) and one with continuing concerns about their pain. Three multiple-choice questions ('yes', 'no', or 'do not know') concerned the organization of the pain group, whether any additional specialist or examination had been desired, or whether any examinations performed were considered unnecessary. A sixth multiple-choice question evaluated whether any intelligible explanation had been given for the pain. In the two final multiple-choice questions ('good', 'poor', or 'do not know'), the patients rated the actions suggested or taken for the pain and the consultation itself on the whole.

Thirty dentists were randomly selected from the 269 dentists, both private and public clinical practitioners, affiliated with the regional social insurance office in Bohus County. In anonymous questionnaires, the dentists were asked to give their sex, age, professional experience, and present appointment.

They were also asked eight questions concerning COP patients and their management. Three open-ended questions dealt with the dentist's estimation of the annual number of COP patients seeking treatment in their own clinic, their opinion of the most common cause of COP, and the share of all COP patients they judged it possible to successfully treat with complete relief from pain. The dentists were also asked whether they could consider referring patients to a pain group comprising dental specialists ('yes', 'no', or 'do not know') and what they expected such a group to do for the patients (open-ended). Furthermore, the dentists were asked whether they were aware that such a pain group existed in the county. In an open-ended question, the dentists were asked whether they thought any additional specialist should be a part of the pain group,

and in a final multiple-choice question the dentists evaluated the usefulness of a pain group.

Cover letters and stamped, addressed return envelopes were enclosed with the questionnaires. All non-responding patients and dentists were sent a reminder and another questionnaire and envelope after a lapse of 2 weeks.

Results

Patients

Fifty per cent of the 30 COP patients were primarily referred by dentists in the Public Dental Service, 30% by dentists in private practice, 10% by physicians, and 7% by dental specialists, and 1 patient (3%) consulted the pain group on her own initiative.

The average age of the patients was 55 years (range, 23–80 years). Twenty-three (77%) were women.

The commonest location (quadrant) of maximum pain was in the maxilla—32% on each side—followed by the mandible, with 24% on the left and 12% on the right. The onset of the present pain was reported to be spontaneous by 63%, associated with a dental procedure by 27%, and a result of a disease in or a trauma to the region by 10%.

The number of therapists, dentists, and physicians that the patients reported they had previously consulted for their present pain, the number of previous endodontic treatments and extractions, and the pain duration (4 years on the average; range, 1–15 years) are shown in Fig. 1.

The etiology of the 30 COP patients' pain, as judged by the pain group, was considered to be psychiatric in 7% of the cases, neurogenic in 20%, nociceptive in 23%, and unknown in the remaining 50%. The measures recommended by the group for the pain were referral to a psychiatrist in 7%, to a neurologist in 17%, and to an ear, nose, and throat (ENT) specialist in 7% of the cases. Thirty-three per cent underwent various pain-relieving measures (endodontics, apicectomies, explorative and cryo-surgery, transcutaneous electric stimulation, acupuncture, blockades, and splints). Thirty-seven per cent received no particular active measure other than information.

Twenty-eight of the 30 COP patients (93%) responded to the questionnaire. Five of the 28 × 8 questions were missed or intentionally not answered. On the average 16 (range, 3–39) months had elapsed since the consultation.

The distribution of the answers to the question about current pain is shown in Table 1. When asked about their present concern about the pain, 11% of the patients stated that they were 'more disturbed', 43% were 'equally disturbed', 28% were 'less disturbed', and 18% were 'not disturbed before or after the consultation'.

Table 1. Distribution of the chronic orofacial pain patients' opinion of their present pain an average of 16 months after consultation in the pain group ($n = 28$)

	<i>n</i>	%
Much worse pain	2	7
Worse pain	2	7
Equal pain	12	43
Less pain	6	21
Much less pain	6	21

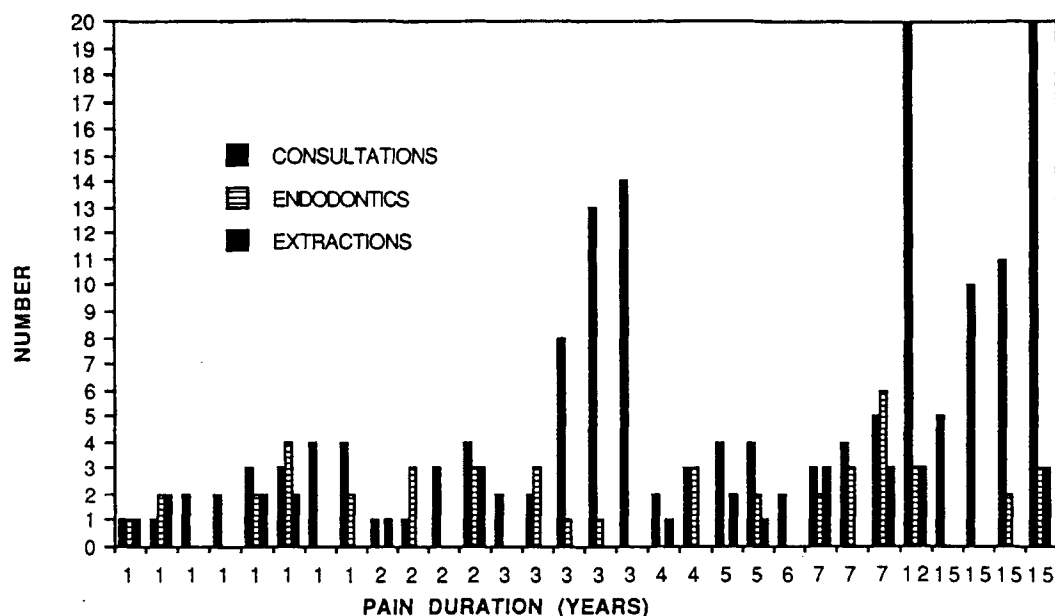


Fig. 1. Thirty chronic orofacial pain patients grouped on the basis of pain duration (range, 1–15 years) and with regard to the number of different dentists and physicians previously consulted (range, 1–20), the number of endodontic measures taken (range, 0–6), and the number of extractions performed (range, 0–3) for current pain.

Of the responding patients, 54% reported that they felt no need for any additional specialist at the consultation in the pain group. Two patients (7%) did: an ENT specialist. Thirty-nine per cent of the patients answered 'do not know'.

Twelve of the patients (44%) thought that all relevant examinations to analyze their pain had been done, 15% did not, and the remaining 41% answered 'do not know'. No particular examination was mentioned as lacking, however. About two-thirds (64%) of the patients did not feel any of the examinations performed by the pain group to be unnecessary, while 7% did. Twenty-nine per cent answered 'do not know' to the question.

Almost two-thirds (62%) of the patients thought that the pain group had not presented any intelligible explanation for their pain after the examination, 19% thought the group had, and 19% answered 'do not know'.

The actions taken or recommended by the pain group against the pain were considered to be 'good' by 52% of the patients and 'poor' by 26%. The remaining 22% answered 'do not know'.

More than half of the responding patients (59%) reported that the consultation on the whole was 'good' and 15% that it was 'poor', while the remaining 26% answered 'do not know'.

Dentists

All of the 30 dentists answered and returned the questionnaire. One of the 30 × 8 questions had not been answered. The dentists' mean age was 47 (range,

29–71) years, and they had been practicing for an average of 20 (range, 3–40) years. Thirty per cent were women and 37% were in private practice.

The dentists estimated that they were consulted annually by 2 (median; range, 0–10) patients with COP. In this context COP was operationally defined in the questionnaire as 'pain in the orofacial area for which the patient had consulted dentists but no solution to the pain problem had been found'.

Seven of the dentists (23%) judged neurogenic causes and 6 (20%) judged psychogenic factors to be the commonest reason for COP. Temporomandibular disorders were named by 17% of the dentists as the commonest reason, and 40% answered 'do not know'.

Half of the dentists 'did not know' what percentage of all patients with COP could be successfully treated with a result of complete pain relief. The remaining 15 dentists answered that, in their opinion, an average of half of all COP patients could be cured (range, 5%–95%).

Almost all of the dentists (97%) would consider referring patients to a pain group. One dentist answered 'do not know'. Seventy per cent of the dentists were aware of the existence of such a pain group in Bohus County.

When asked what a pain group with specialist dentists was expected to do for COP patients, the dentists mentioned 'examination' (27%), 'take care of' (20%), and 'diagnosis' (13%). Four dentists (13%) expected a 'cure'. 'Solution', 'dialogue', and 'do not know' were other replies received.

Twenty-three per cent of the dentists thought that a psychiatrist/psychologist should also be a part of the

pain group, and 23% considered the presence of a neurologist important. A physician, an anesthesiologist, an orthodontist, and 'do not know' were answers given by one dentist each (13%). An ENT specialist was mentioned by two dentists (7%). Ten dentists (33%) thought that no additional specialist should be included in the group.

When asked about the usefulness of a pain group for the dental organization as a whole, 57% of the dentists stated 'very great value', 33% 'great value', and 3% 'some value'. None answered 'small value' or 'no value', but two dentists (7%) answered 'do not know'.

Discussion

Quite different diagnoses were represented in this series of patients with COP. In a small number of cases a distinct cause for the pain could be established and treated.

The patients' sex and age distribution was similar to that described previously for COP patients referred to dental pain groups (2–4). Eighteen of the 30 patients were women over 45 years of age. The often remarkably long duration of the pain seemed to be characteristic as well. Also, the localization of the pain seemed, in most cases, to be typical of intractable, vague pain in the dental sphere, often alleged to emanate from maxillary premolars or molars without detectable lesions.

Overlapping descriptions that lack uniform diagnostic criteria have sometimes been used to categorize such unexplained painful conditions in the orofacial area. They are often diagnosed retrospectively after exclusion of other diagnoses. Atypical facial pain (7) and atypical facial neuralgia (8) or, in its localized form, atypical odontalgia (9–12) are among several proposed diagnoses (13–15). Many of the COP patients consulting our pain group seemed to fall in the diagnostic category 'tooth pain not associated with lesions' (16). It has been observed that such patients often enforce renewed invasive treatments—commonly endodontic therapy and extractions—repeatedly with new therapists in return for, at best, temporary relief (17). The number of consultations also increased, not unexpectedly, with duration of the pain also among our patients, but the number of consultations and invasive treatments seemed to be considerable after only a few years.

In this series most patients' pain had persisted after consultation with the pain group, and most patients were still concerned about their pain. The success rate was not related to the follow-up time. Occasional cases were successfully managed—which is important—but only a minority thus seemed to benefit from the consultation in the sense of an enduring freedom from pain. Remarkably few patients were able to apprehend any intelligible explanation of their pain at the consultation. An inability to accept professional reassur-

ance might be characteristic of COP patients (4). Notwithstanding, and not quite logically, most of the responding patients stated that the consultation had been positive. Quite a few, however, were also negative. Although not systematically investigated, it was evident that some patients had consulted therapists during the follow-up period on their own initiative.

The randomized dentists had, with few exceptions, solid professional experience in their field. The number of COP patients visiting the dentists annually varied considerably among the respondents and was not related to their professional experience. Despite a tangible definition, the implication of COP can probably also vary. The reported total annual number of COP patients was unexpectedly high, and if this magnitude is typical of the county as a whole, only a few of all COP patients are being referred to the pain group. Little is known about the incidence of the condition (1).

Neurogenic and psychogenic factors were among the dentists' most frequently mentioned supposed reasons for COP. This opinion was also reflected in the dentists' answers to the question about the advantage of any additional specialists in the pain group; a neurologist and psychologist/psychiatrist were the ones most often proposed. These assumptions were not contradicted by the experience in the pain group, but these views were not shared by the patients themselves. One clinical impression was that social and emotional factors were important in some patients' distress and complaints, but the pain, located decisively by the patient, seemed to occur in apparently normal tissue. Somatization was suspected in several cases.

The dentists' opinion of the group's ability to remedy the pain of the COP patients varied, but most had a realistic view and rarely expected a complete cure. The opinion was not correlated to age or professional experience. The dentists were surprisingly unanimously positive to a pain group and would consider referring patients.

Many of the painful conditions of COP patients should not be considered purely local diseases (9) and are not within reach of dental treatment. Atypical odontalgia has been associated with both migraine and depression (9) even though this has been questioned (18, 19). Irrespective of the pain's etiology, it has been documented that many of the patients in question obtain relief from pain by the use of antidepressants (9, 10, 12, 18, 20). The positive influence of this medication on pain is not necessarily dependent on the drug's antidepressant effect (21).

As has been pointed out (20), the relevant drugs are not in the dental formulary. It therefore seems necessary for a dental pain group to collaborate closely with medical expertise. Neurologic and, perhaps more often, psychiatric assessment should be introduced as an early routine measure in many cases of inexplicable, persistent, orofacial pain.

Although the number of COP patients is limited, they require a disproportionately large amount of therapeutic effort in return for little relief from their suffering. There are obvious difficulties in restricting objectively justified dental measures when fundamental steps for the pain are demanded of different practitioners by the patients.

In conclusion, a pain group might therefore serve a useful purpose, as reflected by many COP patients' and most dentists' attitudes, but would gain by an even closer collaboration with medical expertise.

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