Odontological Treatment of Torture Victims

By Peter Jerlang

In the middle of the 1970s the Danish medical group of Amnesty International began to examine the many torture victims arriving in Denmark. It turned out that part of the torture carried out had been directed at the head and the oral cavity. It was therefore natural that dentists were included in the examination and treatment of torture victims.

The torture types we found comprised all forms of severe violence to the head and face, and more specialized torture, such as electrical torture, with electrodes were attached to the face, lips, gums, teeth or tongue.

In a previous study of torture findings in 39 persons (1) conditions were found which do not differ much from the findings of a more recent study (2). This study comprised torture victims from 6 different countries.

The torture involved the following:

Blows to the head and face with clenched fists (39); blows to the head and face with instruments (11); kicks to the head and face (18); teeth deliberately loosened (1); teeth extracted (1); electrical torture to the teeth (8); electrical torture to the gums, lips or tongue (11); electrical torture to the face or back of the neck (11): submarino (13).

Symptoms and signs

When summing up the sequelae of torture in these 39 persons, the following result emerge:	
One or more teeth loosened because of beating	7
Teeth knocked out during the torture	2
Teeth lost later as a direct consequence of beating or loosening	7
Tooth fractures because of beating or as a consequence of deliberate action by the torturers:	
Enamel fracture	4
Enamel/dentine fracture, uncomplicated	4
Fracture complicated	1
Left roots	3
Hypersensitive teeth	1
Necrotic pulp	3
Spontaneous headache	14
Provoked headache	13
Pain in the jaw-joint	3
Pain when opening the mouth	2
Reduced mobility of the lower jaw	2
Deviation of the lower joint when opening the mouth	1
Caries	14
Toothache	4
Need for root treatment	6
Symptoms of gingivitis	5
Signs of gingivitis	19
Marginal paradontal pouches over 3 mm	17
Negative papillae	7

The picture of symptoms immediately after the torture and the signs found at the time of examination differ since several years had often passed since the torture. The more acute pain-causing cases had often been treated in the intervening period, i.e. traumatized teeth had either been extracted or treated in some way.

Among other things, it could be mentioned that most of the persons who had been subjected to submarino developed inflammation of the oral cavity, including tenderness, swelling, bleeding and fissures in the mucous membranes of the mouth.

Accessory dental complaints

Almost all the victims examined throughout the years suffer from tender masticatory muscles and headache. It is possible to ascertain that headache, together with depressions, states of anxiety, irritability, sleep disturbances, nightmares and impaired power of concentration, forms part of the picture of symptoms found in almost all torture victims.

The mental condition, the somatic sufferings, and the exile situation with its social, family and language problems cause the victims to live in a state of extreme mental stress. In most victims this state results in a highly increased psychomotor activity which inevitably manifests itself in various forms of parafunctions in the masticatory system, such as dental pressure or teeth grinding. It could almost be said that the teeth become the mirror of the soul.

Therefore, it is not surprising that the frequency of headache caused by tension is much higher than the one found in a normal group of patients.

The victims have seldom suffered from headache or other symptoms relating to bite functions before the detention and torture. Therefore, a connection between the mental state and the pronounced symptoms of headache is very likely.

Theories of the origin of facial pain

As mentioned earlier, one of the more general symptoms among torture victims is that of facial pain and myogenic headache. The frequency of these symptoms is three times as high among persons in this group than among persons in a Danish normal group. Headache can be a direct result of head traumas, but often it is a functionally determined headache resulting from tension. At the same time, pain in the muscles of the neck, globulus sensation, the supportive musculature of the head, the occipital muscles, and the muscles of the pectoral girdle is found. The mental crisis which the victim undergoes probably accounts for the headache resulting from tension which most victims experience. The crisis is a result both of the previous torture experiences and of the exile situation forced on the victims. This stress condition intensifies the psychomotor activity which results in the emergence of various parafunctions such as dental pressure, teeth grinding and tongue pressure. The parafunctions both occur during the day, e.g. in anxiety pro-

voking situations or during concentrated work, and during the night when the increased psychomotor activity causes hyperactivity in the masticatory system. This is particularly so during nightmares. This state is termed bruxism. Bruxism implies a contact between the teeth in the upper and lower jaws. Often the lower jaw is set in an extreme position during the development of vigorous muscle activity. During this activity facets of attrition occur on the teeth. They are often delimited and shiny.

If this state is allowed to continue, pathological conditions in the connective tissue of the muscles in the form of fibrositis, traction periostosis and damage to the teeth and jaw joints will soon occur. If this condition is not disrupted, experience shows that a self-increasing vicious circle is created. The chronic muscular pain will result in depression or increase an already existing depressive state of mind. The heavy muscle activity may result in large or small dental fractures and gradual changes in the occlusal contact conditions. These conditions will cause irritability of the neuromuscular control mechanisms, and this will further stimulate the parafunctional objectional habits. Furthermore, experience shows that this chronic state of pain may cause a change in the reactionary pattern of the organism during stress influences. In these patients a higher concentration of cathechol amine and of 17-hydroxystereoids than the one seen in healthy patients has been found. Moreover, it has been shown that these pain-suffering patients react to stress situations by tightening their masticatory muscles far more than normal patient would do in a similar situation.

If the parafunctions continue during a long period without treatment, the jaw joints will often be damaged because the upper part of the lateral pterygoid muscle, which inserts itself in the anterior part of the disc of the joint, is particularly active during teeth grinding. This hyperactivity will gradually cause an anterior or lateral dislocation of the disc with loading of the soft posterior part of the disc. This causes pain and swelling. The patient will experience the luxation as a snapping of the jaw-joint. The snap usually takes place at the end of the opening movement when the disc slips into place at the top side of the condyle. The disc will be correctly positioned during the closing movement, but at the end of the closing movement, it will be dislocated anteriorly again. A return snap will occur which will often not be audible to the patient. When the disc is not in its right position between the condyle and the fossa, the distance between the clondyle and the fossa will be reduced. This will cause a disturbance of the normal occlusal position. This position may be stabilized by intrusion of the posterior molars. However, supra-contacts at lateral movements will occur, and they will worsen the existing parafunction. If the situation continues, lasting and degenerative changes in the jaw-joints will occur. If treatment is initiated at an early time, a reposition of the discus can be obtained, and regenerative scar formation will take place. An arthrosis will usually stabilize itself and become relatively symptomless if the parafunction stops. However, heavy pain and reduction of mobility will often occur later.

Examination of bite function

Most of the torture victims examined by us do not relate their headache to dental pressure or teeth grinding. It is therefore important always to include an examination of the bite function as an essential part in an odontological examination.

The examination contains the following elements:
The *yawning movement* should be symmetrical up to a distance of 40 mm between the edges of the incisor teeth in the upper and lower jaws. A smaller distance, or an asymmetrical opening movement could indicate an anteriorly displaced discus; however, this could also relate to a muscular condition.

Jaw-joints. Palpation of the movement of the condyles and the discus should be made. Both lateral and dorsal palpation should be made.

Examination of the muscles. All masticulatory muscles should be palpated, if possible, bilateral palpation. If any painful areas are found, they should be marked in a diagram with a special markation of the subjective pain areas. The localization of the pain-causing fibrositis provides a clear guide to understanding how the lower joint is positioned during bruxism. For instance, if fibrositis is found in the masseter muscles of both sides, in the anterior right part of the temporal muscle, and in the right lateral pterygoid muscle, it is likely that the patient performs his bruxism with his lower jaw positioned anteriorly to the left.

In order to establish this hypothesis the teeth should be examined with a view to finding *bruxer facets* where such contact may occur.

Then a *provocation test* should be made. Here the patient finds the hypothetical position in which the attrition facets fit together, and he presses his teeth firmly together for some minutes. If known facial pain occurs, the test is positive.

Finally, the *occlusal contact conditions* should be examined, and also whether there are non-interfered gliding possibilities during protrusion, laterotrusion, mediotrusion and retrusion.

Short on treatment

The actual dental treatment will not be dealt with here, but it should be mentioned that it should be carried out together with an applied general treatment.

General treatment

Psychotherapy to reduce mental strain. Physiotherapy. Medicamentation.

Dental treatment

Bite plates. Medical treatment: analgetics, blockades. Physiological treatment: massage, heat, muscular exercises. Occlusal grinding. Prosthesis reconstruction.

Preparation of dental treatment

All the persons examined had a distinct wish to undergo dental treatment, especially treatment based on regeneration, because it is extremely important to the victims to appear whole again. The oral cavity seems to have great psychological importance.

The often long periods of detention under poor sanitary conditions and the poor prison food increase the already pronounced need for treatment which is found among the victims (3).

The prerequisite for a successful treatment is a profound knowledge of the victim's background, torture record, imprisonment and present situation. It is important to built up slowly a relationship of trust. This is often difficult because of the language problems since

this means that communication often takes place via an interpreter. In such a situation it is very important to direct the attention solely at the victim and more or less ignore the interpreter. Body language must be used. At the same time a poor knowledge of the victim's cultural background can be a problem, especially in the interpretation of the victim's reactions.

The first contact should never take place in the consultation room, and never with the victim placed in the dental chair. If the victim is placed in the chair, with instruments and two persons bowed over him, the victim will feel fixed and deprived of control. He will experience such a situation very much like an earlier torture experience. In fact, dental treatment will often be experienced as a crisis which can easily trigger off violent reactions on account of the earlier crisis experiences.

In severe cases it may therefore be necessary to prepare the dental treatment in cooperation with the psychologist, who, with a good result, can practise programmes of relaxation to be used in the dental chair. It may be an advantage if the psychologist participates during the initial treatments until the necessary contact and trust is established.

It is important never to let a torture victim wait for treatment because this waiting may trigger off anxiety reactions which can easily destroy an already established trust relationship.

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