Forensic odontological examinations of alleged torture victims at the University of Copenhagen 1997-2011

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Abstract

Background: Clinical forensic examinations of alleged torture victims have been performed by forensic pathologists at the University of Copenhagen since 1995. In 13.2%/33 of these cases the examinations were supplemented by a forensic odontological clinical examination. In this study the forensic odontological cases from the years 1997-2011 are presented and discussed.

Methods: This study includes 33 reports from alleged torture victims (4 females, 29 males) who have been examined by a forensic odontologist at the Copenhagen School of Dentistry in the years 1997-2011.The material available consisted of copies of medical forensic reports and the forensic odontological reports including x-rays. Background data, anamnestic data and results of the forensic odontological clinical examinations were registered as well as the conclusion of the clinical examinations.

Findings: The forensic odontological clinical examinations were complicated by the presence of unspecific injuries and various degrees of active oral pathology. In 27 of the cases it was concluded that the findings were consistent with the alleged torture, in six of the cases the findings were concluded to be highly consistent with the alleged torture.

Key words: torture, forensic odontology, refugee, asylum

Introduction

International humanitarian laws and international human rights laws outlaw torture. The Human Rights Committee is part of the United Nations and has stated that "complaints about ill-treatment must be investigated effectively by competent authorities."[1] Furthermore both the United Nations Convention against Torture and Danish law prohibit repatriation of refugees if there is reason to believe they will be tortured.[1] A history of being subjected to torture and findings that support this history may be important factors in the process of applying for asylum in Denmark.[2]

Clinical forensic examinations of alleged torture victims have been performed by forensic pathologists at the University of Copenhagen since 1995. The clinical examinations by the forensic pathologists are performed after requisition from the Danish Immigration Service. The examinations are performed according to the medical ethical rules for doctors and according to the recommendations in the Istanbul Protocol.[1] The examinations are an objective documentation of physical and psychological findings relating to the alleged torture incident. When the alleged torture victim reported that teeth and/or jaw were involved in the torture, referral was made to the forensic odontologist to perform a clinical examination. The odontological examination consists of an anamnestic part where the history is recorded and the alleged torture incident described with emphasis on the oro-facial complications. A clinical inspection is

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performed, typically supplemented by x-ray examinations. After the physical examination has been performed and evaluated along with the x-rays, a report is written and handed to the forensic pathologist. The forensic pathologist then implements the odontological report in the final and official forensic report.

Here we present a retrospective study of the forensic odontological examinations performed at the Department of Forensic Medicine in Copenhagen over a 15 year period from 1997 to 2011. A total number of 250 examinations of alleged torture victims were performed at the department during these fifteen years. In 33 (13.2%) of these cases forensic odontological examinations were requested.

To our knowledge there have not been any other peer-reviewed articles discussing cases of forensic odontological examinations of alleged torture victims.

Material

This study includes 33 reports from alleged torture victims (4 females, 29 males) who have been examined by a forensic odontologist at the Copenhagen School of Dentistry in the years 1997-2011. All but seven of the examinations were made by the same forensic odontologist.

The material available consisted of copies of medical forensic reports and the forensic odontological reports including x-rays. The types of x-rays were intra-oral projections, orthopantomograms (OPGs) and in one case a frontal projection. In 27 cases both OPG and intraoral were made; in four cases only OPG; in one case an OPG and a frontal projection; and in one case only an intraoral x-rays from a previous dental consultation in Denmark. In several cases (22/33) there were reports of the torture victim having consulted a dentist in Denmark. When possible, written material and x-rays from these consultations had been included in the overall evaluation by the forensic odontologist at the time.

Methods

This is a retrospective, descriptive investigation. The 33 cases were studied and the following data noted:
Anamnestic data: Gender, age and country of origin as well as the reported type of violence to the oro-facial area and the reported resulting injury. *Data from the clinical examination:* Any documentation of lesions and scars on facial skin, lips and oral mucosa along with the present condition of the teeth and oral health were registered. Any complaints from the examined asylum seeker regarding present oral function documented in the reports were noted. *Radiological examination:* It was noted what kind of x-ray material was available and if the reports noted signs of old or new jaw fractures and if there were signs of tooth fragments left in the bone of the jaws. *Conclusion:* The types of conclusions in the forensic odontological reports were noted.

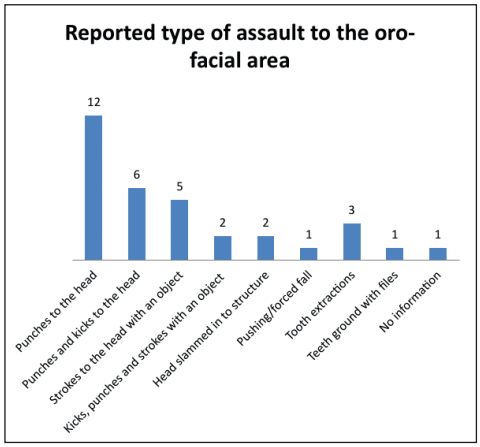
Results

Anamnestic Data

The 33 persons came from 13 different countries. The broader geographical distribution was the Middle East (N = 18); Former Soviet Republics (N = 8); Africa (N = 4); and Asia (N = 3). Four were females, 29 were males. The median age was 33 years (range: 22-62 years). The median time between last torture incident and the examination was five years (range: 1-20 years).
Blunt force to head and jaws, where one of the sequelae was injury to teeth and/or jaws, was the most commonly reported type of torture (28/33). Direct impact to the teeth was reported in four cases. In three of these

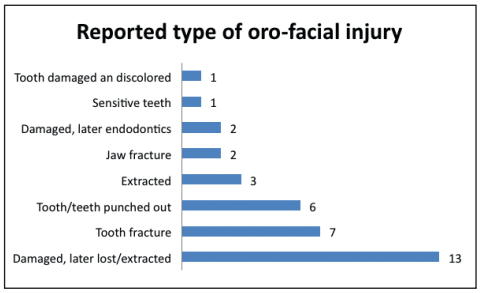
cases it was reported that teeth had been extracted with pliers. In the fourth case the teeth reportedly had been "ground with a file". One person could not recall the type of violence. The distribution of types of violence is summarized in figure 1.

Figure 1: *Bar chart showing the types of violence to the oro-facial area as reported by the refugee.*



Damages to teeth were reported in all but one of the cases (32/33). In a little more than a third of the cases (13/33) an unspecific dental damage was reported, which eventually led to loss of the teeth. Dental fractures in varying degrees were reported in seven cases. In six cases an immediate tooth loss due to blows to the head was reported. The three victims that reported being subjected to tooth extractions reported immediate tooth loss. Two victims reported dental damages that later resulted in endodontic treatments. One victim reported damages that resulted in discoloration of one tooth. The victim who reported having his teeth ground with files complained of sensitive teeth. Jaw fractures were reported in two cases. In one of these cases the jaw fracture was the only reported injury. In the second case it was reported that there had been a jaw fracture and that teeth had been punched out. The different types of injuries are summarized in figure 2.

Figure 2: *Bar chart showing the distribution of the resulting injuries from the violence reported.*



There was report of damage to one tooth in ten cases (10/30), damage to two to three teeth in eight cases (8/33), and damage to four or more teeth in 12 cases (12/33). No dental damage was reported in one case. In the two final cases it was not clear how many teeth were involved.

Ten of the torture victims reported having received dental treatment in both their country of origin and in Denmark following the alleged torture. Nine torture victims had seen dentists in Denmark but not in their country of origin. In six of the cases it was the other way around: they had received dental treatments in their country of origin following the torture but had not seen a dentist in Denmark. Three persons had not been to a dentist at all after the alleged torture incident. In two of the cases the torture victims had been treated by a dentist in Denmark as well as in the jail where the torture took place. There was no information of dental consultations in two of the cases. One person had not received any treatment

but had been to an initial dental consultation in Denmark.

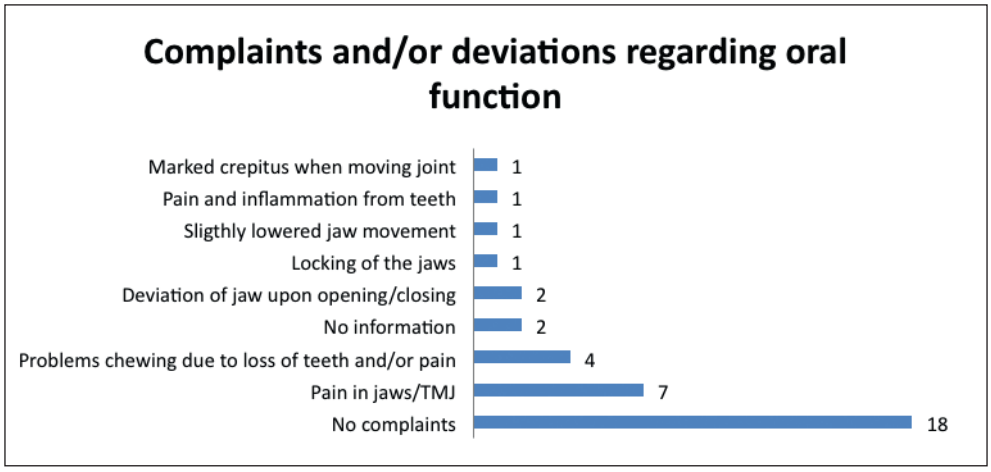
The Forensic examination

In 26 of the 33 cases the examining forensic odontologist found no extra-oral signs of previous torture. In four cases the forensic odontologist documented scars on the chin. In one of these cases the scar originated from a burn injury in childhood and was thus not related to the alleged torture incident. In one case the face and jaws of the alleged torture victim appeared asymmetrical. The intraoral inspection of the mucosa revealed white scars in one of the cases. In 26 cases there were no descriptions of any lesions in the mucosa. There were no cases where the x-rays displayed signs of jaw fractures or healed jaw fractures. In two cases the x-rays revealed signs of root/tooth fragments in the bone. In one case a healing tooth socket was seen on x-ray.

In 15 of the cases the forensic odontological report documented complaints of problems with daily oral function and/or deviations. Pain and/or soreness related to jaw movement were most common (7/33). Problems with chewing were noted in four cases. The problems with chewing were caused by missing teeth and pain. The deviations in oral function are summarized in figure 3.

The oral health status was recorded. In one third of the cases (11/33) no special remarks were made regarding signs of oral pathology. In 17 of the cases cariogenic lesions of various degrees were reported. Severe

Figure 3: *Bar chart showing the distribution of reported daily oral complaints or deviations.*



periodontal disease was observed in 13 cases. The findings are summarized in figure 4.

Conclusions of the examinations

The conclusions in the reports are based upon a comparison of the anamnestic information of the alleged torture incidence with the clinical findings. The conclusions found in these reports fell in to two categories: the findings were consistent with the alleged torture or the findings were highly consistent with the alleged torture. In 26 of the cases it was concluded that the findings may have been caused by torture. In six cases it was concluded that it was likely that the findings were caused by torture. In one case the degree of active periodontitis and caries made it impossible for the examiner to reach a conclusion. There were no cases where the conclusion was that the findings were not consistent with the alleged torture.

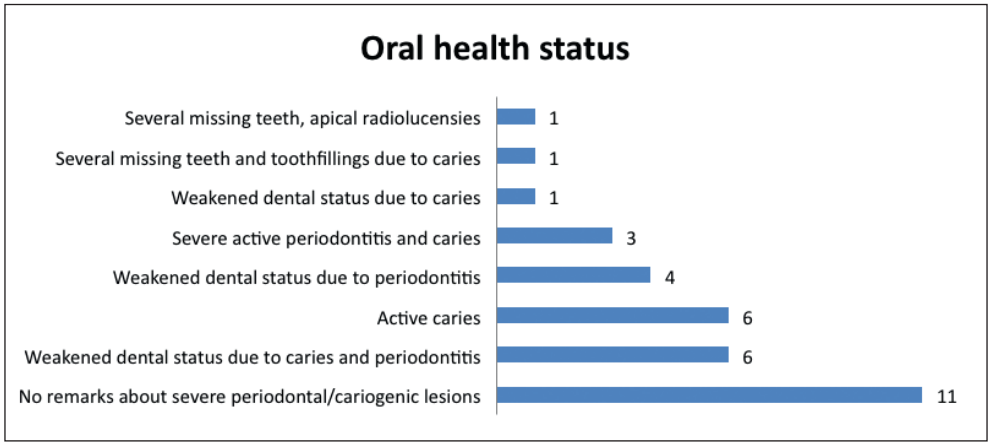
In three of the six cases where the conclusion was that the findings were highly consistent with the alleged torture, loss of a canine or a fracture of a canine was among the findings. The arguments for the highly consistent with conclusions in the six cases were:

1. Characteristic fracture of incisive at odds with the general oral state.
2. Missing canine at odds with the general oral state.
3. Unusual root-fracture in a lower canine.
4. Scarring on the mucosa and tooth fragment in the jaw bone.
5. Malfunctioning occlusion combined with missing upper canine.
6. The tooth allegedly lost because of torture, was the only tooth missing combined with uneven healing suggestive of remaining tooth-fragment.

Other examinations

The forensic pathologist decides if further examinations are needed to supplement the clinical examination. In all of the present 33 cases the alleged torture victims were also referred to a forensic psychiatric examina-

Figure 4: *Bar chart showing the distribution of oral pathological conditions noted in the forensic odontological report is illustrated.*



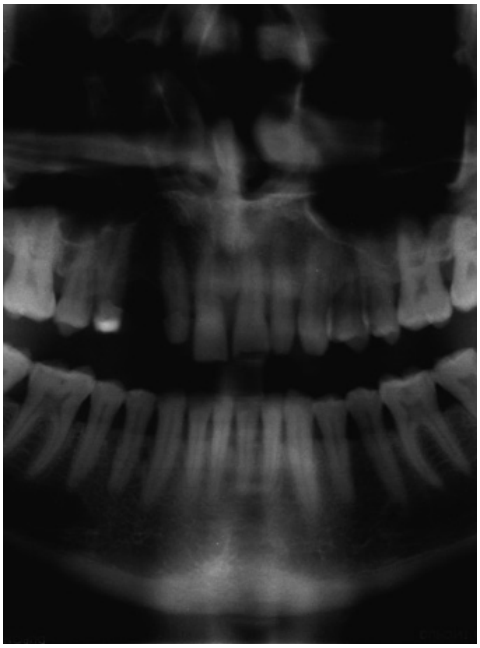
tion. When deemed necessary other examinations were requested as well. These included referrals to dermatologists, urologists, rheumatologists, physiotherapists, ophthalmologists, radiologists, neurologists, etc. In eight cases the only supplemental examination was a forensic psychiatric examination. In the rest of the cases referrals were made to a forensic psychiatric examination, forensic odontological examination, plus one to three other examinations (nine were referred to one extra, five were referred to five extra and one was referred to three extra). The total number of examinations per alleged torture victim who underwent a forensic odontological examination ranged from three to six examinations.

Discussion

The 33 persons discussed in this paper are a highly selected group which only includes refugees where a history of torture could influence the asylum application case and where this history includes dental injury. Thus the results of the examinations do not necessarily represent the general frequency or the general type of dental injuries due to torture. It is important to differentiate the forensic dental examinations that are discussed in this article from other examinations of torture victims. It is not an examination aimed at documenting the oral health status per se or the effects that the alleged torture has had on the victims. The nature and aim of the examinations discussed in this article was to document findings supporting or not supporting allegations of torture in the oro-facial area.

The main objective of the examinations described in this article was to make an assessment of whether or not the reported injuries were due to torture or not. This assessment was complicated when the documented injuries could just as well have been caused by pathological conditions present in the examined oral cavity as opposed to a traumatic injury. In the present study about two thirds of the victims (23/33) presented themselves with periodontal and/or cariogenic problems that were noted in the reports. A high prevalence of active oral pathological processes in torture victims has also been reported in other studies.[3,4] The forensic odontologist thus had to evaluate if the reported injuries fell in to the general oral health pattern or if they differed. An example of an injury not falling into the general pattern is the solitary loss of a canine in an otherwise relatively intact set of teeth as seen in figure 5.

Figure 5: *OPG of one of the cases where the conclusion was that the findings were highly consistent with the alleged torture. The missing upper right canine does not fall into the general oral pattern.*



An oral cavity free of major pathological conditions other than what is reported to be due to torture assaults is easier to evaluate than an oral cavity with signs of severe periodontal and/or cariogenic lesions. It is however crucial to remember that an oral cavity with pathological conditions does not exclude that torture has taken place, but it does make it more difficult to objectively make a judgment as to the origin of the injuries. The complex nature of the findings emphasizes the importance of having a forensic odontologist or experienced dentist performing the examinations.

In a Danish survey published in 1978[5], the results of examinations of 34 torture victims were presented. The aim of these examinations was not to investigate whether or not the person had been subjected to torture, but to document the effects of torture on the oro-facial region. One of the conclusions of the study is that it was very hard to find uniform signs of torture having taken place. The findings were unspecific and the evaluation was complicated by lacking knowledge of the oral status before the torture incident. Therefore the findings should always be compared to the victim's narrative of the torture[5].

The unspecific nature of the physical signs is however not a complication solely for the forensic odontological examiner but something the forensic examiners in all the specialties have to bear in mind. The reason for the unspecific nature of the findings can be due to different factors. The time elapsed between the torture incident and the examination is often long and thus a certain degree of healing will have taken place. Furthermore, the "torture can be inflicted in different ways, some of them characteristic to a region, others universal. In some situations torturers do not pay attention to hiding their work and inflict injury indiscriminately often leaving gross scars, fractures and paralyses. In other countries, the torturers are anxious not to leave tell-tale sequelae which could be used as evidence in court and develop techniques which cause only transient bruising or physical disability."[6] In the evaluation of the documented findings, it is therefore "essential to emphasize in the report that absence of scars does not vitiate a claim of torture unless the description given of the nature or severity of the injury is such that scarring or deformity would have been inevitable."[7]

Another implication of the high prevalence of pathological conditions is that the torture victims are in need of dental treatment. Dental treatment may be very anxiety-provoking for the torture victim regardless of whether torture was aimed directly at the mouth or not. Victims subjected to the torture form "submarino", for instance, may react strongly to the water used in the oral cavity during dental treatment.[8] The dentist treating refugees should therefore always be aware of the fact that torture may have taken place earlier and take special precautions. The dentist should not ask directly if the patient has been subjected to torture as this may be a sensitive subject. The dentist should rather ask whether or not the patient has been in prison in the patients' country of origin.[8]

Of the 33 cases where forensic odontological examinations supplemented the examination performed by the forensic pathologist (13.2% of the examinations performed in 1997-2011), six of the cases concluded that the findings were highly consistent with the alleged torture. In the remaining 27 cases the conclusion was that the findings were consistent with the alleged torture. Thus there were no conclusions that definitively stated that torture had taken place; rather the conclusions supported the claim that torture might have taken place.

This is also valuable information as the odontological examination never stands alone but is integrated into the other medical examinations. Furthermore, it is important to remember that even though there were no absolute conclusions, the absence of proof is not proof of absence and that negative findings do not exclude that the alleged torture has taken place. When the findings are inconclusive the alleged torture victim should always be given the benefit of the doubt.

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