Evidence of Torture:
Studies by the Amnesty International
Danish Medical Group

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AMNESTY INTERNATIONAL is financed by subscriptions and donations of its worldwide membership. To safeguard the independence of the organization, all contributions are strictly controlled by guidelines laid down by AI's International Council, and income and expenditure are made public in an annual financial report.

© Amnesty International Publications 1977
ISBN: 0 900058 56 0
First published June 1977
Original language: English
AI Index: PUB 72/00/77
Published by Amnesty International Publications,
53 Theobald's Road, London WC1X 8SP, England
Printed in Great Britain by Twentieth Century Press, 8-13 New Inn Street, London EC2A 3HE

Published during
1977 Prisoners of Conscience Year
by Amnesty International Publications
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Preface

The Medical Profession and Torture
by Professor Povl Riis

It is a sad fact that our age is characterized by the inhumanity of torture, a practice which seems to be increasing. Yet more sad is the seeming impotence of mankind to combat this evil.

International law related to the practice of torture is limited at present to documents and declarations of human rights. Condemnations can be only moral, and the rule of law regarding torture depends largely on persuasion by organized international opinion, as represented, for example, by Amnesty International.

There can be no doubt that elimination of the practice of torture must be based, in the long term, on political and cultural development. At present, the only recourse is established judicial procedure: establishment that the crime of torture has been committed, condemnation of the crime, and judgement of the criminal. However, such recourse is, in reality, hardly ever available to victims of torture.

There is a risk that the increasing exposure of incidents of torture will lead to torturers refining their methods or even to executing their victims, but the general preventive effects of evidentiary exposure and international moral condemnation on the whole outweigh these considerations. Repressive regimes usually attempt to present an acceptable image abroad, and they are therefore vulnerable to international opinion. Potential victims are best protected by conclusive evidence that others in their country have been tortured, and by the identification of the individuals responsible for these crimes.

Sadly, a minority of doctors are involved in the practice of torture. Where doctors are known to have participated in torture, either by suggesting the means of torture or by evaluating the extent of torture that the victim can tolerate, colleagues abroad can intervene in a preventive way by condemning the doctor’s collaboration in torture1. A doctor’s ability to diagnose torture sequelae clearly depends on a knowledge of the incidence and clinical pattern of torture. Improved diagnosis of torture requires research, both nosographical and, more specifically, studies of, for example, the stigmata after electrical stimulation of the skin, and of the whole spectrum of sequelae associated with different forms of torture. Study of the immediate effects of torture, however, is beset by special methodological problems. It is necessary that subject, study equipment and examiner be able to establish physical contact. This is usually no problem in medical practice, but in this special field, it is rare that the scientist can reach the

1. Such an initiative is being taken by Amnesty International’s Danish Medical Group.
victims or have at his or her disposal necessary ancillary diagnostic aids unless a sudden political change occurs, as for example, in Greece in 1974.

Even more rarely can a doctor examine a torture victim within the victim’s own country. Nonetheless, doctors travel more today than ever before—to attend international congresses, to work on health projects abroad, as delegates, tourists, etc., and such travel gives opportunities to assist in the detection and condemnation of torture. As with the “battered child syndrome”—where accurate descriptions preceded, and were the prerequisites of doctors’ increased diagnostic acumen—systematic attention must be given to the subject if doctors throughout the world are to become more alert to the presence of torture sequelae.

Amnesty International’s Danish Medical Group has taken an original initiative by dealing with the medical aspects of torture in a global perspective. Younger and older medical colleagues have embraced Amnesty International’s efforts to protect all threatened persons from torture, irrespective of nationality, politics or creed, and have come to grips with many of the above-mentioned problems. The group has made an important contribution to the support and spread of international opinion against torture, and, not least, against doctors who collaborate in the practice. Torture victims have been examined, and nosological studies made—which are macabre but necessary. Specific projects have been started: for example, the study of skin changes indicating electrical torture. It is noteworthy that the group has received international recognition. It is witnessing the spread of its ideals and initiative outside Denmark. This is a hopeful sign. In the absence of such initiative, indignation and impotence would have continued hand in hand.

There might be colleagues who feel that political issues, or issues with political overtones such as torture and other persecution of human beings, should not appear in medical publications. Occasionally one encounters the argument that such abuses occur the world over. This can easily create a feeling of helplessness and indifference to such suffering.

This point of view is in my judgement untenable. No one has the right to be indifferent in an affair which concerns suffering and exploitation of our fellow human beings. The subject of torture, therefore, places a very strong obligation on doctors and authors of medical publications.

As is shown by the articles that follow in this monograph, research about torture sequelae has begun. However, the medical profession as a whole has a responsibility to continue this research on a much larger scale. There is a need for sponsored research into the whole field of torture, including forensic study, the training of torturers, the detection of torture sequelae, and, ultimately, the provision of improved medical care for torture victims. It will be necessary for universities and medical foundations to sponsor such research. Governments that oppose torture must likewise lend moral and financial support. This field of medical research can and should be international, with shared resources and results. Because torture is an international problem and because research in the field could be used to benefit the torturers, intergovernmental agencies such as the World Health Organization have a special obligation to support medical research against torture and to provide guidelines and safeguards against the abuse of this research.

Composition of the Medical Group
by Henrik Krüger

Amnesty International’s Danish Medical Group was initiated in October 1974 by Dr Inge Kemp Genefke in order to help Amnesty International in its work against torture. One of the main reasons for forming the Group was the recurring evidence that in many countries doctors collaborate in torture. It is hoped that the Danish Medical Group, along with the international medical community, can dissuade their colleagues from collaborating in torture. A second and equally pressing reason why members of the medical profession should work for an end to torture is that torturers are now using new, sophisticated techniques that often leave few, if any, visible traces. In some cases, the only means of detecting and documenting a torture victim’s allegations against skilled interrogators is by using modern techniques. And such detection is necessary to confirm that torture has been used. Proving that people have been tortured is vital if the practice is to be stopped.

No medical group like this had ever been formed before, so no empirical material was available. Its organization and method of working had to be developed without any existing model. Today, two and a half years after the Group started work, the experiment can be said to have succeeded inasmuch as the Group will in future serve as a model for similar medical groups in other countries, under the auspices of Amnesty International.

The Danish Medical Group is divided into the following sub-groups: the central or travelling group, the research groups, the letter-writing group and the psychiatric group. The travelling group is the core of the organization. Its 14 members are the central group which coordinates the work of all the sub-groups. This is because, as a rule, the travelling group obtains the basic research material which is later studied by some of the other groups.

The members of the travelling group are trained and ready to go anywhere in the world where torture is allegedly being used. The mandate of the doctors whom Amnesty International’s Executive Committee sends is to examine victims and, where possible, confirm torture allegations, as well as to collect material for further research.

So far, members of the travelling group have been sent, among other places, to South Korea, Greece and France (in the last country to examine Uruguayan
There are several research sub-groups. One is focusing on the effects of electrical torture; another on the effects of *falsanga* (beating on the soles of the feet). Others are studying endocrinological, neurophysiological, and other effects of torture. And now a new group is being formed, namely a forensic medical group, to deal with cases of detainees who have died allegedly as a result of torture.

The letter-writing group is the largest sub-group, comprising about 100 members from all over Denmark. This group's main task is to exert pressure on the authorities and medical colleagues in countries where torture is used, in order to achieve humane treatment of prisoners.

The psychiatric group works independently, but in cooperation with the other groups. It is composed of five psychiatrists, and it investigates certain abuses of psychiatry, including the internment of political dissidents in mental hospitals and the use of drugs to torture these prisoners.

The Danish Medical Group is a voluntary organization and therefore perpetually needs funds—increasingly so, in fact, because its sphere of activities is widening.

Two members of the central travelling group belong to the newly established Medical Advisory Board, which is responsible to the Amnesty International Executive Committee. This Board will be responsible for forming medical teams on an international basis and for coordinating their activities. So the pioneer work of the Danish Medical Group is forming the basis for what is hoped will become a worldwide medical campaign against torture. Members of the medical profession from all over the world are invited to join Amnesty International in this campaign.

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**Torture: A Study of Chilean and Greek Victims**

*by Dr Ole Vedel Rasmussen*
*Dr Agnete Mouritzen Dam*
*Dr Inge Lunde Nielsen*

*(The Amnesty International Danish Medical Group)*

People have been tortured throughout history. There are very early descriptions of torture methods, but only since World War II have the psychological and biological sequelae of torture been studied (2, 3, 4, 6, 11, 12, 14). There is no clear division between these two manifestations, and the net result of torture depends on the degree and perhaps the type of the insult, and on the victim's constitution. French authors, especially, have thought that hypothalamic dysfunction is responsible for established sequelae (13).

Amnesty International held a Conference for the Abolition of Torture in December 1973 to discuss how to confirm that torture had taken place and how to abolish the practice. A main topic of discussion was the sequelae of torture, and this led to the formation of a group of Danish doctors whose main aim was to conduct basic research into the late manifestations of torture. It is also a sad fact that doctors are involved in planning torture, both in deciding how much the individual can tolerate, and in refining torture methods mainly to prevent the appearance of late objective manifestations. Only a similar professional group with the opposite conviction would be qualified to verify allegations of torture where particularly sophisticated techniques were used. In brief, the Amnesty International Danish Medical Group's main object is to accumulate information about torture so that conclusive evidence can be presented wherever torture has occurred, thus supporting the United Nations Universal Declaration of Human Rights.

A comprehensive study of torture methods is the first part of the program, followed by application of clinical and ancillary studies designed to relate particular torture techniques with their specific late sequelae. The primary clinical examinations, it was hoped, would indicate possibilities of treatment and point the way to further investigations which would also help with determining treatment.

This is a study of Chilean refugees in Denmark and Greek political prisoners held by the Junta's security forces.

**Material and Method**

Chilean refugees began to arrive in Denmark in 1973. Many reported that they
had been tortured, and it was possible to examine 32 of these who had allegedly 
been tortured any time from two weeks to two years prior to examination.

Members of the Medical Group travelled to Greece to examine 35 Greek 
ex-prisoners held for varying lengths of time. They all reported that from two to 
seven years previously they had been tortured.

Their nationality, sex and ages are shown in Figure 1.

Two doctors and an interpreter took part in each examination. Detailed case 
histories were taken, and special attention was paid to descriptions of prisons, 
interrogation, torture, and the immediate and later manifestations of torture. 
Clinical study was conventional, including clinical neurology; and in some 
cases there was an opportunity to see skeletal X-rays that had already been 
taken. As far as possible the sequelae of torture were related to specific torture 
methods.

The investigations were conducted in a standardized way.

Results

Torture methods are recorded in Table I. Virtually all the victims had been 
beaten, and in two-thirds of the cases, the beatings had included trauma to the 
head. Falanga was inflicted only on the Greek prisoners: 29 of the 35 (83%). 
Electrical torture involved placing electrodes on any part of the body, particu-
larly the head (ears, nose and mouth), and the genitalia. Eighty-four percent of 
the Chilean prisoners had been subjected to this form of torture, which was 
seldom inflicted on the Greeks. Sexual violation was rare in both groups, but 
beating of the genitalia common.

Fifteen of the 67 complained of impaired hearing. All 15 had also experienced 
direct cranial trauma.

Eight of the total, four Chileans and four Greeks, complained of sexual dis-
trubances following torture. (It could well be that there were more, but this is a 
sensitive topic, and there was some reticence about it.)

The incidence of sexual disturbances in relation to genital and cranial trauma 
and sexual violation was studied, revealing that the Chileans who got this treat-
ment did not suffer from a higher degree of sexual disturbance. On the other 
hand, the four Greeks admitting to sexual disturbances were among the 25 
victims of cranial trauma (Figure 3), and three of these four were among the 
11 who had suffered genital trauma. To sum up, nobody complained of sexual 
disturbances if he or she had not suffered either direct genital or cranial trauma 
(Figure 4).

Two Chileans, one man and one woman, had been sexually violated. Neither 
complained of sexual disturbances. No Greek had been sexually violated.

Pain in the joints, especially the knee and ankle, sometimes accompanied by 
gait disturbance, was reported by over 50% of the Greeks who had been sub-
jected to falanga.

In the course of taking case histories, careful inquiries were made about 
weight before and after torture. The information given revealed that 50% of the 
combined groups had lost 5 kg. or more in weight. All had rapidly regained their 
pre-torture weight except one who was a "Muselman", who took longer to regain weight.

Finally, nine of the total 67 still complained of symptoms and sequelae of 
ilness experienced before imprisonment and torture. These complaints included 
cardiopulmonary symptoms, back pain, and, in the case of one patient, severe 
psychiatric symptoms.

Objective stigmata which could be related to torture could be seen in the 
cases of 21 of the 32 Chileans and 24 of the 35 Greeks (Table V).

Neurological abnormality was found in 13, the most severe cases being four 
Greeks, two with paresis of, respectively, the hip and foot, who had suffered 
falanga, one with signs of neuropathy, and one with bilateral papillary atrophy, 
possibly the consequence of severe cranial trauma. The neurological findings in 
the remainder was of loss of local sensibility at particularly torture-damaged 
parts of the body.

Mental disturbance in the form of mild paranoia, emotional lability and 
irritability was noted in 10 cases, mostly Greeks, out of the total 67 subjects. 
One Chilean displayed a psychosis, but he had had psychotic symptoms before 
arrest and torture. There were few objective diagnoses compared with the number 
of complaints of mental disturbance (60% of the total), but extreme caution was 
exercised, largely because of the difficulties involved in working through an 
interpreter, but also because of obvious differences in temperament.

Ten subjects appeared to have impaired hearing, but the test was primitive.

Nine of these had experienced direct cranial trauma.
Ten Greeks displayed gait disturbance and/or symptoms of arthrosis. These were among the 29 subjected to falanga. Nineteen had minor skin lesions, the majority appearing to be the result of cigarette burns and beatings, but in the cases of two Chileans the lesions could have been caused by electrical torture. Finally, there were 11 subjects with clinically and/or radiologically demonstrable sequelae of fractures. Of these, one Chilean had been hung up by the hands and feet and beaten on the back, and had a fracture of the lumbar vertebrae. Three other Chileans had nasal, orbital, and rib fractures. Three Greeks who had suffered falanga had too or foot fractures, and one other displayed changes after skull and femur fractures sustained when he fell from a window.

**Discussion**

The identification of a torture syndrome (a well defined group of symptoms experienced by individuals who have been tortured) had been expected, also that this syndrome would differ from the KZ syndrome (2,4), although there would be similarities which could be related to the common factor of stress. The study was of two heterogeneous, very different groups of individuals from two countries with different cultures and different political regimes. Furthermore, the Chileans were refugees. The results of a wide range of assaults on the person in the form of physical and mental torture have now been observed. Essentially, the same methods were used, although in Greece falanga was favoured and in Chile, electrical torture. Sequelae can to some extent be related to the actual type of torture used: fracture to trauma; gait disturbance and pain in the joints to falanga; headaches, impaired hearing, loss of memory and inability to concentrate to cranial trauma. The associations are logical but not always proof of torture. The sequelae of falanga were uniform but not always explicable. Fractures explain some manifestations, but other or similar manifestations are present when there is no evidence of fractures and may indicate microlesions of joints, bones, vessels and nerves. It should prove possible to distinguish between these sequelae of torture and the sequelae of accidents because falanga trauma is so particular. Refined diagnostic methods should be used to distinguish among the possible causes of such disability.

Electrical torture was frequently inflicted in Chile, but occasional minor skin scarring was the only indication that it had been used. A few subjects admitted suffering from sexual disturbances. All of these had been subjected to cranial and/or genital trauma. (None complained of sexual disturbances who had not been exposed to such trauma.) Many of the Greeks had had their genitals beaten; in the case of the Chileans, electrical torture of the genitals was more frequent.

Undoubtedly the worst sequelae of torture were psychological and neurological. Symptoms of anxiety, irritability, and, to a lesser extent, depression were common. Anxiety was particularly marked among the Greeks. Loss of memory, impaired powers of concentration, sleep disturbance and headaches were frequent, and were nearly always experienced only by those who had been subjected to direct cranial trauma. In KZ syndrome prisoners an association has been found between cranial trauma and encephalopathy (12). The symptomatology recorded closely resembles the post-traumatic cerebral syndrome, and, to some extent, the KZ syndrome, in comparison with which there were fewer complaints or manifestations of lethargy, and only one person had vegetative symptoms. The KZ syndrome has been related to the degree of weight loss (3). Loss of weight is not itself considered causative; rather, it is used to measure accumulated stress, the elements of which, individually and collectively, are responsible for established change. This study revealed no significant starvation factor, although some victims had been deprived of food for short periods.

**Hypothalamic dysfunction** is also used as an hypothesis in the etiology of the KZ syndrome (13). It is well known that stress can affect gonad function (1,10). Stress experiments in animals have shown that selective lesions of specific areas of the hypothalamus cause impotence (9), and it is probable that particular areas of the hypothalamus and limbic system are responsible for both libido and potency (1,7). Temporal lobe lesions can also cause impotence (5). It is possible that direct cranial trauma combined with basic psycho-physical stress could cause organic lesions, especially of the hypothalamus. This postulate is reasonable and could be confirmed by studies of hypothalamus function in people who have been tortured. Gonad function is sensitive, and could be a relevant initial study of the hypothalamus, hypophysis, gonad axis (8).

These findings also indicate the great need for exhaustive neuro-psychiatric examinations, but this would be expensive and would require specialized personnel and study techniques. A further problem would be ethnic differences in temperament and culture, which would mean that only a compatriot would be fully qualified to examine and draw conclusions about particular individuals. The lack of health facilities and resources in these two countries would severely limit such comprehensive investigation at present, but the need for it is indisputable.

Finally, the time lapses (from two weeks to seven years) between torture and the Medical Group's studies must be mentioned. The symptoms of the KZ syndrome for the most part appear even later. They are a complex collection of signs and symptoms representing static, progressive and regressive changes: the future state of these Chilean and Greek subjects is only a matter of conjecture.

Of the utmost importance is effective treatment of torture victims to prevent pathological change from becoming permanent, and, as far as possible, to reverse such change. For this, there must be a comprehensive clinical and ancillary program of examination, as mentioned above. To conclude, the Medical Group believes that it has begun to achieve its aims. It has now had some experience examining torture victims, has gained some knowledge of torture methods, and of early and later sequelae which can often with reasonable certainty be related to specific torture techniques. It has proved possible to conduct all investigations in a standardized way, which helps to give comparable and reproducible results.
Résumé

Torture continues to be widespread. This examination by a Danish medical study group under the auspices of Amnesty International was undertaken to accumulate information about torture in general, specific torture methods, and as far as possible to relate early and late sequelae to these methods. Whether or not treatment is possible at the moment is uncertain, and a better understanding and elucidation of the pathology of the sequelae of torture are necessary before principles can be determined.

Sixty-seven Chilean and Greek torture victims were studied. The torture had been inflicted any time from two weeks to seven years before the examinations were made.

The victims had suffered many different kinds of physical violence and mental stress.

The sequelae of torture are complex—neuropsychiatric disturbances being the main problem.

There are clear indications that specific sequelae can be related to specific torture techniques, but there need to be more refined methods of studying the problem if this relationship is to be more precisely proved.

It will thus become easier to produce incontrovertible evidence that torture has in fact been inflicted.

The examinations have been done by the following members of the Amnesty International Danish Medical Group:

Frede Bro-Rasmussen
Agnete Mouritzen Dam
Inge Kemp Genefke
Aage Riis Kjærgaard

Jørgen Lindholm
Inge Lunde Nielsen
Erik Karup Pedersen
Ole Vedel Rasmussen
Helmut Stadler

Literature

Figure 1: Nationality, sex and age of the 67 subjects. In all, 13 women (6 Chileans and 7 Greeks) and 54 men (26 Chileans and 28 Greeks).

Symbols: □□ Chileans □ Greeks ■ Women

Figure 2: Mental disturbances related to solitary confinement for more than two weeks.

- Mental Disturbances

<table>
<thead>
<tr>
<th></th>
<th>Chileans (n = 32)</th>
<th>Greeks (n = 35)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ solitary confinement</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>- solitary confinement</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

Figure 3: Direct cranial trauma related to sexual disturbances.

- Sexual Disturbances

<table>
<thead>
<tr>
<th></th>
<th>Chileans (n = 32)</th>
<th>Greeks (n = 32)</th>
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</thead>
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<tr>
<td>+ direct cranial trauma</td>
<td>26</td>
<td>18</td>
</tr>
<tr>
<td>- direct cranial trauma</td>
<td>18</td>
<td>14</td>
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</table>

Figure 4: Sexual disturbances did not occur in subjects not exposed to cranial trauma or genital trauma.

- Sexual Disturbances

<table>
<thead>
<tr>
<th></th>
<th>Chileans (n = 32)</th>
<th>Greeks (n = 35)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Genital trauma</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>- Cranial trauma</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Others</td>
<td>24</td>
<td>26</td>
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</table>
### Table I: Methods of Torture

<table>
<thead>
<tr>
<th>Method</th>
<th>Chileans n = 32</th>
<th>Greeks n = 35</th>
<th>Total n = 67</th>
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<tbody>
<tr>
<td>Beating</td>
<td>18</td>
<td>25</td>
<td>43</td>
</tr>
<tr>
<td>Direct cranial trauma</td>
<td>0</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>Falanga</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Electrical torture</td>
<td>27</td>
<td>5</td>
<td>32</td>
</tr>
<tr>
<td>Sleep deprivation &gt; 2 days</td>
<td>4</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>Solitary confinement &gt; 2 weeks</td>
<td>10</td>
<td>26</td>
<td>36</td>
</tr>
<tr>
<td>Starvation and dehydration &gt; 2 days</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Sexual exploitation</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Direct genital trauma</td>
<td>17</td>
<td>11</td>
<td>28</td>
</tr>
<tr>
<td>Threatening of family and friends</td>
<td>11</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>Enforced witnessing or overhearing torture of others</td>
<td>13</td>
<td>12</td>
<td>25</td>
</tr>
<tr>
<td>Threats of execution</td>
<td>13</td>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td>Pharmacological torture</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Tooth torture</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Suspension by feet or hands</td>
<td>9</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Water torture</td>
<td>5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Bright light torture</td>
<td>3</td>
<td>1</td>
<td>4</td>
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<tr>
<td>Other forms of torture</td>
<td>18</td>
<td>20</td>
<td>38</td>
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</table>

### Table II: Symptoms after torture

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Chileans n = 32</th>
<th>Greeks n = 35</th>
<th>Total n = 67</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental disturbance</td>
<td>17</td>
<td>23</td>
<td>40</td>
</tr>
<tr>
<td>Memory and concentration loss</td>
<td>17</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>Headaches</td>
<td>12</td>
<td>11</td>
<td>23</td>
</tr>
<tr>
<td>Sleep disturbance (difficulty in falling asleep, too much sleep, nightmares)</td>
<td>14</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td>Alcohol intolerance</td>
<td>4</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Sexual disturbances</td>
<td>4</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Impaired hearing</td>
<td>6</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Joint pain</td>
<td>6</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>Impaired gait</td>
<td>1</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Visual disturbances</td>
<td>2</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Cardiovascular symptoms</td>
<td>5</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Abdominal pain</td>
<td>4</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Chronic diarrhoea</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other symptoms</td>
<td>12</td>
<td>17</td>
<td>29</td>
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</table>

### Table III: Mental disturbance

<table>
<thead>
<tr>
<th>Nature</th>
<th>Chileans n = 17</th>
<th>Greeks n = 23</th>
<th>Total n = 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychosis</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Neurosis</td>
<td>(depression, anxiety, phobia, hysteria)</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>Character change (affectability, irritability, introversion)</td>
<td>10</td>
<td>16</td>
<td>26</td>
</tr>
<tr>
<td>Psychosomatic change (lethargy, fatigue)</td>
<td>3</td>
<td>6</td>
<td>9</td>
</tr>
</tbody>
</table>

### Table IV: An alternative evaluation of mental symptoms

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Chileans n = 17</th>
<th>Greeks n = 23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Phobia</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Depression</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Irritability, aggression, lability</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Communication difficulty</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

### Table V: Objective findings

<table>
<thead>
<tr>
<th>Manifest sequelae of torture</th>
<th>Chileans n = 21</th>
<th>Greeks n = 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neurological</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Mental</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Impaired hearing</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Fractures</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Skin lesions</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Poor dental condition (post-traumatic)</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Gait disturbance/arthritis</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Diverse</td>
<td>10</td>
<td>2</td>
</tr>
</tbody>
</table>
Victims of Torture in Uruguay and Argentina: Case Studies

by Dr Aage Riis Kjaersgaard
Dr Inge Kemp Geneffe
(The Amnesty International Danish Medical Group)

There is little literature about clinical studies of torture victims (1). This report is of three such cases. The patients concerned belong to the larger group investigated by the Danish Medical Group, but are of special interest for two reasons: they were examined only four weeks after actual torture, and it was possible to conduct follow-up examinations eight weeks later.

Case histories

The subjects were three Uruguayans—a woman of 22 and two men aged 24 and 25. All three had allegedly been victims of torture previously in Uruguay because of their political activities, and had been forced to flee from Uruguay to Argentina. As refugees registered with the United Nations office for refugees in Buenos Aires, they had remained in Argentina for about a year, until the middle of July 1976. On 6 July 1976, they were openly kidnapped in a Buenos Aires street and taken to a derelict house outside the city. They were tortured continually for seven days. They were kept together, and guards were always present. On 13 July 1976, they were freed, and, having obtained visas to enter France, arrived in Paris, where they were examined by the authors on 10 August, then re-examined eight weeks later.

1. The woman had been first arrested in Uruguay in 1971. She was beaten, and threatened with rape. She was re-arrested in 1973. She was stripped and subjected to the "submarino"—a torture which entails submerging the victim's head under water until he or she nearly drowns. This was repeated several times, the duration of each submersion being decided according to the victim's pulse.

She was raped and suffered mental torture when told that her family had been threatened. Her sister and four-year-old child were arrested, after their home had been ransacked.

Before torture she had been healthy, but afterwards had had headaches and symptoms of gastritis. When she was 21, she had gone into hospital in Uruguay with right-sided pneumonia, and since then has suffered from exertional dyspnoea and attacks of asthma.

2. The 24-year-old man had been arrested four times in Uruguay, first when he was 18. He was kicked, and beaten with clenched fists and truncheons. He reported having been beaten unconscious on one occasion and having remained unconscious for 12 hours. He was also subjected to the "submarino"; and on one occasion to the "plunto". The latter entails being made to stand for long periods (several days).

He was also tortured mentally: threats were made against his family and friends. After the fourth arrest he was imprisoned for five months, then transferred to a work camp, which he described as a concentration camp, for 18 months.

The first bout of torture had seriously damaged his health: he suffered from dizziness, and, for more than five months, could not walk because of injuries caused by blows on his left leg.

When he was arrested for the second time, one of his teeth was knocked out. Shortly after, he developed an infection of the left mandible and left ear. Antibiotic treatment was complicated by abdominal pain and diarrhoea which further weakened him.

When arrested for the third time, he had visual hallucinations, and "plunto" torture caused bilateral oedema of the legs, extending to the knees, and pressure sores under both heels. His memory and concentration were impaired, and he frequently got headaches.

3. The 25-year-old man was arrested in Uruguay when he was 20. He was kicked, and beaten with machine guns and truncheons. This went on almost without interruption for three or four days. The right side of his back was particularly affected. His captors, for the most part, avoided damaging his head: he received only one hard blow on the head, on the right side of the back of the head. After five months in prison, he was transferred to the previously mentioned work camp.

The immediate result of his first bout of torture was severe pain in the back of his head—a pain which still troubles him, especially in wet weather. The right side of his back was also painful for some weeks after he was tortured, and he still often feels weak and suffers from numbness in his right arm and shoulder.

After being in the work camp, his teeth began to fall out.

Before they were medically examined, these three victims had been kidnapped in Argentina. They had been handcuffed and blindfolded, and kept like this throughout the seven days when they were tortured. The torture was inflicted according to a repeated sequence: first, blows, then cigarette burns, then electrical torture. This sequence was repeated and supplemented with other forms of ill-treatment.

They were tortured together at all times.

In more detail, the torture consisted of the following:

1. general beating, including beating the head;
2. burning with cigarettes, especially on the hands and forearms, but also on the trunk and legs;
Follow-up study
Eight weeks later there was subjective and objective improvement. Subjectively, the victims' anxiety and depression persisted. The woman still complained of headaches, exertional dyspnoea and gastritis. Objectively, as many as one-third of the scars from cigarette burns had completely disappeared. The other two-thirds still clearly showed.

There was similar disappearance in some places after "picana" but in other places there was fading of the scars from electrical burns. The scars were most evident on the medial aspect of the thighs, where they were reddish brown circular spots.

Discussion
The authors' observations of the sequelae of torture are due to their membership of the study group which undertook detailed medical and neurological examination of 67 Chilenans and Greeks who had been tortured.

The first examination, made as soon as four weeks after torture, enabled the authors to evaluate objectively the relatively early consequences of torture. It was impossible for them to use refined ancillary study methods, but their simple clinical examination revealed many objective torture sequelae. Eight weeks later, there were still objective findings but some improvement. The persisting scars presumably reflect pressure and duration of the application of the burning instrument, and the incidence of infection. There were objective signs of torture in 70% of the 67 subjects of the larger study. In this smaller study all three subjects showed objective signs. The conclusion drawn is that the period between postulated torture and clinical examination can be very important. The more thorough and refined the medical investigation, the less critical the time factor. X-ray, biopsy and hormone studies, for example, might be added to this simple basic investigation in order to accumulate irrefutable evidence that torture had in fact been inflicted.

Résumé
Three young Uruguayans, one woman and two men, were examined after allegations that they had been subjected to torture in Uruguay and Argentina. The examinations were made by two Danish doctors of medicine who belong to Amnesty International's Danish Medical Group. Case histories were taken, and medical and neurological studies were made four and 12 weeks after the postulated torture. Clinical findings were fully compatible with the case histories that had been given.

When the second study was made, there was some improvement in the subjective and objective condition of the subjects. Evidently, the time between exposure to torture and clinical examination can be critical. The authors would like to employ more refined and thorough techniques of examination to render this time factor less critical. Allegations of torture could thus be more easily confirmed.

Reference:
Figure 1: Sequelae of cigarette burns.

Figure 2: Sequelae of electrical burns ("picuna")
A Study of an Instrument Used for Electrical Torture
by Dr Poul Dyrby-Poulsen
Dr Ole Vazel Rasmussen
(The Amnesty International
Danish Medical Group)
Leif Rasmussen (civil engineer)

In countries where the authorities torture political prisoners, electrical devices are frequently used (2). The effects are painful and distressing, and sometimes effective in extracting confessions. The method seldom leaves traces, and requires little effort on the part of the torturer.

Amnesty International obtained one of the minor electrical instruments — the so-called "shock baton" — which is reported to have been used for torture in Cyprus, among other places, during and before 1974. It is made in the USA to be used as a police truncheon. It is modelled on cattle-prods.

The authors studied the pain-producing capacity of the instrument by comparison with a recognized kind of pain. All studies of pain are fraught with considerable difficulty (3, 4). Sensation of pain varies greatly between one individual and another, and incidental factors greatly affect the interpretation of a painful stimulus. Quality of pain also varies extremely, so that, for example, chronic pain is a different experience from acute pain.

According to classical physiology, pain is taken to be a specific sense, and its intensity to be proportional to tissue destruction. The pain stimulus is transmitted from somatic receptors to the pain center in the brain. But this is altogether too simple. There is in fact no pain center, and experience of pain is an extremely complex phenomenon in which anxiety, conditioning, suggestion and other variables play an important part. There are, however, physiological grounds for classifying pain as sharp and local (epicritic) or dull and diffuse (protopathic) because it has been shown that the former is transmitted by thin myelinized group III neurites, while the latter is transmitted by unmyelinized group IV neurites (6).

A pain threshold can be measured, but this is worthless. There is no uniformity among individuals, and results cannot be reproduced, even within the same individuals. Conventional determination of pain threshold as used, for example, in the evaluation of analgetics is thus valueless. Only special signal detection methods (5) can reflect an effect of an analgetic, morphine for example, and the same test methods indicated that acetyl salicyclic acid is one of the best analgetics.

By contrast, evaluation of pain intensity is somewhat more feasible in an experimental situation where the patient is asked to compare the pain inflicted
by the instrument under test with a standard pain. The pain of ischaemia has proved an acceptable standard, even though the mechanisms, cause and transmission, are largely unknown. This pain can be produced by muscle work during local ischaemia. Results are reproducible, and the phenomenon is well known to all doctors with experience of patients with angina pectoris or intermittent claudication. This method of comparison is used in pain clinics (9) and has the advantage that pain can thus be numerically measured. Treatment effects therefore can be compared with placebo effects, with but little reference to patients' verbal descriptions of their pain.

AUTHORS' STUDY

The Instrument

The "shock baton" is rod-shaped, 38 cm. in length, and weighs 750 gr. (Fig. 1). The "shock baton" is rod-shaped, 38 cm. in length, and weighs 750 gr. (Fig. 1). Within the shaft is a generator, in principle an induction apparatus, which is driven by three 1.5 V batteries (Fig. 2). At the end of the rod there are two metal electrodes set at a 7 mm. interval. Each electrode is 10 mm. in diameter and 2 mm. high. Two current-bearing metal rings, 1 mm. thick, are placed distal on the rod. With a resistance of 22 kohm between the electrodes, the rod gives impulses lasting 0.2 msec with a peak tension of 600 V and a peak current of 27 mA. (Fig. 3). There is an interval of 1.8 msec between impulses, and the average effect is 0.9 watts. The rod is activated by pressing a button in the middle of the handle. The intensity of the stimulus is controlled by a voltage divider placed between the rod and stimulating electrodes, which were a copy of the rod electrodes.

Material and method

The pain inflicted by the "baton" on six volunteers was studied. The latter were three women and three men aged between 24 and 45. A modified Tourniquet Pain Ration technique (8) was used to measure the maximum pain the "baton" could cause. This pain was compared with pain caused by muscle work under local ischaemia. The subjects' emotional responses were evaluated by measurement of galvanic skin conductance and pulse.

Each volunteer sat in a comfortable chair in a small room. Pulse measurement electrodes were placed on each wrist. Galvanic skin conductance was measured through electrodes placed on the second and third finger of the left hand (Bechmann Type B polygraph with cardiotachometer and skin conductance measuring bridge). The "baton" electrodes disturbed these measurements if "baton" and measuring electrodes were close to each other, so the umbilical region was chosen for the experimental stimulus. The electrodes were taped to the skin 3 cm. under the umbilicus. Electrical stimuli of increasing strength up to the instrument's maximum capacity were given. Each stimulus lasted 3.0 sec. The maximum stimulus was approximately six times as great as the first stimulus that could be felt, thus not sufficiently strong to stimulate the thin unmyelinated group IV neurites. Ischaemic pain is probably transmitted only by these group IV neurites, and this difference suggests that there is no physiological basis for comparing the two pains experienced. Nevertheless, the volunteers could compare the different stimuli in terms of their subjective discomfort. The "baton" stimulus caused localized contraction of the abdominal musculature, but probably this was of no significance. Similar stimulus of a finger caused similar pain in the absence of muscle contraction.

Emotional reaction, as reflected by galvanic skin conductance and pulse rate, was only slight. Each volunteer was in control of the experiment and could personally discontinue the stimulus at any time. Relations between investigators...
and subjects were friendly. Thus, despite the placing of the electrodes on the abdomen, a sitting commonly used during actual torture, atmosphere and milieu could not otherwise be described as typical of a torture session.

Conclusion
The instrument studied—a “shock baton”—can, under the given experimental conditions, cause pain described by five out of six volunteers as severe.

This reveals nothing about the reactions to electrical torture of fatigued and anxious captives simultaneously suffering additional privations; also the electrodes themselves can be placed on more sensitive parts of the body.

Résumé
A study was made of the capacity of a minor torture instrument that causes pain. The instrument was a “shock baton” (Police model PB) modelled on cattle-prods.

Studies of the pain threshold do not provide reproducible results; therefore a modified Tourniquet Pain Ration technique was preferred. Pain caused by electrical “baton” stimulus was compared with pain experienced during muscle work under local ischaemia.

Six volunteers reported that the experience of pain was similar although the nature of the pain was different. The volunteers’ emotional reactions, evaluated by measurements of galvanic skin conductance and pulse frequency, were negligible, but the friendly and comfortable milieu must be taken into account.

No conclusions about the pain experienced by captives subjected to electrical torture in an actual torture situation can be drawn from this study.

References
Figure 1: The "Shock Baton" police model PB manufactured by "Shok Baton Co." Inc., Savage, Minnesota 55378, USA.

Figure 2: The label from one of the batteries of the "Shock Baton".

HEAVY DUTY
SUPER-MOTIC
STOCK PROD CELL
SIZE-C
"OUR BUSINESS IS SHOCKING"

MADE IN U.S.A.
MANUFACTURED FOR
LOT-SHOT PRODUCTS CO., INC. * SAVAGE, MINN. 55378

Figure 3: Pattern of the stimulation impulse. At a resistance of 22 kohm the "baton" gives a peak flow of 27mA.
Table I: Strength of stimulus in milliamperes at the moment when subjects first felt the stimulus, and at the moment when the stimulus caused pain.

<table>
<thead>
<tr>
<th>Volunteers</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimulus felt</td>
<td>2.2</td>
<td>2.2</td>
<td>2.2</td>
<td>2.7</td>
<td>3.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Stimulus gave pain</td>
<td>20</td>
<td>24</td>
<td>–</td>
<td>20</td>
<td>18</td>
<td>24</td>
</tr>
</tbody>
</table>

Table II: Maximum pain caused by electrical stimulation evaluated by reference to ischaemic pain. Increase in galvanic skin conductance (µohm) and percentage increase in pulse rate during maximum electrical stimulation.

<table>
<thead>
<tr>
<th>Volunteers</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum pain from electrical stimulus</td>
<td>1.33</td>
<td>0.67</td>
<td>1.33</td>
<td>0.57</td>
<td>1.00</td>
<td>1.11</td>
<td>1.00</td>
</tr>
<tr>
<td>Increase in skin conductivity (µohm)</td>
<td>1.40</td>
<td>0.70</td>
<td>0.10</td>
<td>0.00</td>
<td>0.05</td>
<td>0.28</td>
<td></td>
</tr>
<tr>
<td>Pulse rate increase—%</td>
<td>8</td>
<td>15</td>
<td>4</td>
<td>7</td>
<td>0</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
### Glossary of Medical Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETYL SALICYLIC ACID</td>
<td>aspirin</td>
</tr>
<tr>
<td>AETIOLOGY</td>
<td>branch of medical science dealing with the causes of disease</td>
</tr>
<tr>
<td>AMENORRHOEA</td>
<td>absence or suppression of menstruation during the time of life when it should occur</td>
</tr>
<tr>
<td>ANALGETICS</td>
<td>drugs or other measures which cause temporary relief of pain</td>
</tr>
<tr>
<td>ANGINA PECTORIS</td>
<td>violent paroxysm of painful sensations in the chest</td>
</tr>
<tr>
<td>ANOREXIC</td>
<td>suffering from anorexia or loss of appetite</td>
</tr>
<tr>
<td>ARTHRITIS</td>
<td>joint affection</td>
</tr>
<tr>
<td>ATROPHY</td>
<td>state of wasting due to some interference with the function of healthy nutrition</td>
</tr>
<tr>
<td>AXIS</td>
<td>second cervical vertebra of the spinal column</td>
</tr>
<tr>
<td>BILATERAL</td>
<td>affecting two sides of the body</td>
</tr>
<tr>
<td>BIOPSY</td>
<td>removal and examination of tissue from the living body for diagnostic purposes</td>
</tr>
<tr>
<td>CARDIOPULMONARY</td>
<td>instrument for determining rapidity of heart-beat</td>
</tr>
<tr>
<td>CLAUDICATION, intermittent</td>
<td>severe pain in the calf muscles occurring during walking but which subsides with rest</td>
</tr>
<tr>
<td>CONDUCTANCE</td>
<td>conducting ability of a body or a circuit for electricity</td>
</tr>
<tr>
<td>CRANIAL</td>
<td>pertaining to the skull</td>
</tr>
<tr>
<td>DISTAL</td>
<td>furthest from the center, from a medial line or from the trunk</td>
</tr>
<tr>
<td>DORSUM</td>
<td>the back</td>
</tr>
<tr>
<td>DYSFUNCTION</td>
<td>absence of complete normal function</td>
</tr>
<tr>
<td>DYSPNOEA</td>
<td>difficulty in breathing</td>
</tr>
<tr>
<td>ENCEPHALOPATHY</td>
<td>any dysfunction of the brain</td>
</tr>
<tr>
<td>EPICRITIC</td>
<td>pertaining to extreme sensibility such as that of the skin when it discriminates between degrees of sensation caused by touch or temperature</td>
</tr>
<tr>
<td>EPICASTRIC</td>
<td>pertaining to the region over the pit of the stomach</td>
</tr>
<tr>
<td>EUTHYROID</td>
<td>having a normally functioning thyroid gland</td>
</tr>
<tr>
<td>FEMUR</td>
<td>bone of the thigh; the largest and strongest bone in the body</td>
</tr>
<tr>
<td>GALVANIC</td>
<td>pertaining to galvanism (the therapeutic use of direct current of electricity)</td>
</tr>
<tr>
<td>GASITRITIS</td>
<td>inflammation of the stomach</td>
</tr>
<tr>
<td>GONAD</td>
<td>generic term referring to both the female sex glands, or ovaries, and the male sex glands, or testes</td>
</tr>
<tr>
<td>HYPOPHYSIS</td>
<td>pituitary gland</td>
</tr>
<tr>
<td>HYPOTHALAMUS</td>
<td>that part of the forebrain situated beneath the thalamus on each side and forming the floor of the third ventricle; the nervous center for primitive physical and emotional behaviour</td>
</tr>
<tr>
<td>INGUINAL</td>
<td>pertaining to the region of the groin or lower part of abdomen on each side of the body</td>
</tr>
<tr>
<td>ISCHAEMIA</td>
<td>local obstruction of the blood circulation to a part of the body</td>
</tr>
<tr>
<td>KZ SYNDROME</td>
<td>complex of physical and mental after effects of imprisonment in World War II concentration camps</td>
</tr>
<tr>
<td>LABILITY</td>
<td>state of being unstable or changeable</td>
</tr>
<tr>
<td>LESION</td>
<td>an injury; any disease changes in organs and tissues</td>
</tr>
<tr>
<td>LIMBIC</td>
<td>pertaining to a limbus or border</td>
</tr>
<tr>
<td>LUMBAR VERTEBRAE</td>
<td>five bones of spinal column situated in the loins</td>
</tr>
<tr>
<td>MANDIBLE</td>
<td>bone of the lower jaw</td>
</tr>
<tr>
<td>MEDIAL</td>
<td>pertaining to the middle, nearer the medial line</td>
</tr>
<tr>
<td>MORPHINE</td>
<td>main alkaloid found in opium</td>
</tr>
<tr>
<td>&quot;MUSELMAN&quot;</td>
<td>emaciated concentration camp prisoner</td>
</tr>
<tr>
<td>MYELINIZED</td>
<td>occurrence of white fat-like substance forming a sheath around myelinated nerve fibres</td>
</tr>
<tr>
<td>NEURITES</td>
<td>nerve fibres</td>
</tr>
<tr>
<td>NEUROPATHY</td>
<td>any disease of the nerves</td>
</tr>
<tr>
<td>ODEMA</td>
<td>dropsical swelling</td>
</tr>
<tr>
<td>ORBITAL</td>
<td>concerning the orbit, or the bony pyramid-shaped cavity of the skull which holds the eyeball</td>
</tr>
</tbody>
</table>
PALPATION: method of examining the surface of the body and the size, shape and movements of the internal organs, by laying the flat of the hand upon the skin.

PAPILLA: small nipple-like protuberance or elevation.

PAPILLARY: concerning a nipple or papilla.

PARESIS: a state of slight or temporary paralysis.

PLACEBO: inert substance given as a medication.

POLYGRAPH: an instrument for making simultaneous tracings of the pulse in two different parts of the circulation.

PROTOPATHIC: primitive, undiscriminating.

PROXIMAL: nearest the point of attachment or center of the body or point of reference, as opposed to more distal, or distant, structures.

PSYCHOSIS: term applied to serious disorder of the mind, amounting to insanity.

RECEPTOR: distal part of nerve cells or special cells functioning in reception of stimuli.

RHONCHI: a rattle in the throat.

SEQUELAE: the term applied to symptoms or effects which are liable to follow certain diseases or events.

SOMATIC: relating to the body as opposed to the mind.

SPHYGMOMANOMETER: an instrument for measuring blood pressure in the arteries, usually consisting of a pneumatic armlet or "cuff".

STIGMATA: marks or spots on the skin; marks characterizing a specific disease.

SYMPTOMATOLOGY: science of symptoms and indications.

SYSTOLIC: pertaining to a systole, or contraction of the heart.

TEMPORAL LOBE: lobe of cerebrum, containing auditory receptive areas.

THORACIC VERTEBRAE: the 12 vertebrae which connect the ribs and form part of the posterior wall of the thorax.

THYROID: gland of internal secretion in the neck.

TOURNIQUET: instrument used for the temporary stoppage of the circulation in a limb to control bleeding.

TRAUMA: an injury or a wound.

UMBILICUS: navel.

VEGETATIVE: quiescent, passive; functioning involuntarily.

Sources:
Further information about Amnesty International's Campaign for the Abolition of Torture or other aspects of the work of Amnesty International can be obtained from the offices of the national sections of Amnesty International or from the International Secretariat, 53 Theobald's Road, London WC1X 8SP, England.