

EVIDENCE OF TORTURE:

**Studies by the Amnesty International
Danish Medical Group**

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CONTENTS

<i>Preface: The Medical Profession and Torture</i> by Professor Povl Riis	5
<i>Composition of the Medical Group</i> by Henrik Krüger	7
<i>Torture: A Study of Chilean and Greek Victims</i> by Dr Ole Vedel Rasmussen Dr Agnete Mouritzen Dam Dr Inge Lunde Nielsen	9
<i>Victims of Torture in Uruguay and Argentina: Case Studies</i> by Dr Aage Riis Kjaersgaard Dr Inge Kemp Genefke	20
<i>A Study of an Instrument Used for Electrical Torture</i> by Dr P. Dyhre-Poulsen Dr Ole Vedel Rasmussen	27
<i>Glossary of Medical Terms</i>	36

Preface

The Medical Profession and Torture
by Professor Povel 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

refugees who had been tortured in Argentina). Other journeys are being considered.

There are several research sub-groups. One is focussing on the effects of electrical torture; another on the effects of *falanga* (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.

Torture: A Study of Chilean and Greek Victims

by Dr Ole Vedel Rasmussen

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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, particularly 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.

Eighteen of the Chileans and 20 of the Greeks were tortured in other ways as well: they were threatened with execution, burnt with cigarettes, deprived of sleep, kept standing over long periods, had their nails torn out, submerged in excrement and buried alive, then disinterred.

The wide spectrum of symptomatology after torture is shown in Table II.

Sixty percent of the combined groups displayed mental disturbance: 17 Chileans and 23 Greeks. The difference is not significant. The symptoms are set forth in Table III.

Anxiety and irritability were frequent complaints: 15 Chileans and 19 Greeks.

Five Greeks, but only one Chilean, reported communication difficulties.

Six Greeks and three Chileans complained of lethargy—they had no energy and were easily tired.

Anxiety was more frequent among the Greeks, and depression among the Chileans, but the difference was not significant (Table IV).

If sleep disturbances, headaches, loss of memory, difficulty in concentrating and sexual disturbances—all of which can be symptoms of mental illness—are included, then 26 Chileans and 26 Greeks (78% of the combined groups) showed signs of mental disturbance.

Thirty of the Greeks and 13 Chileans had been politically active. The incidence of mental symptoms was similar in both the politically active and the inactive groups.

There was some relationship between duration of solitary confinement and incidence of mental symptoms (Figure 2).

Complaints of loss of memory and difficulty in concentration were frequent, also headaches. Everyone who complained of all three had experienced direct cranial trauma.

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 disturbances 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 treatment 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 subjected 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 illness 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 toe 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 aetiology 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; so 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—neuro-psychiatric 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:

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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

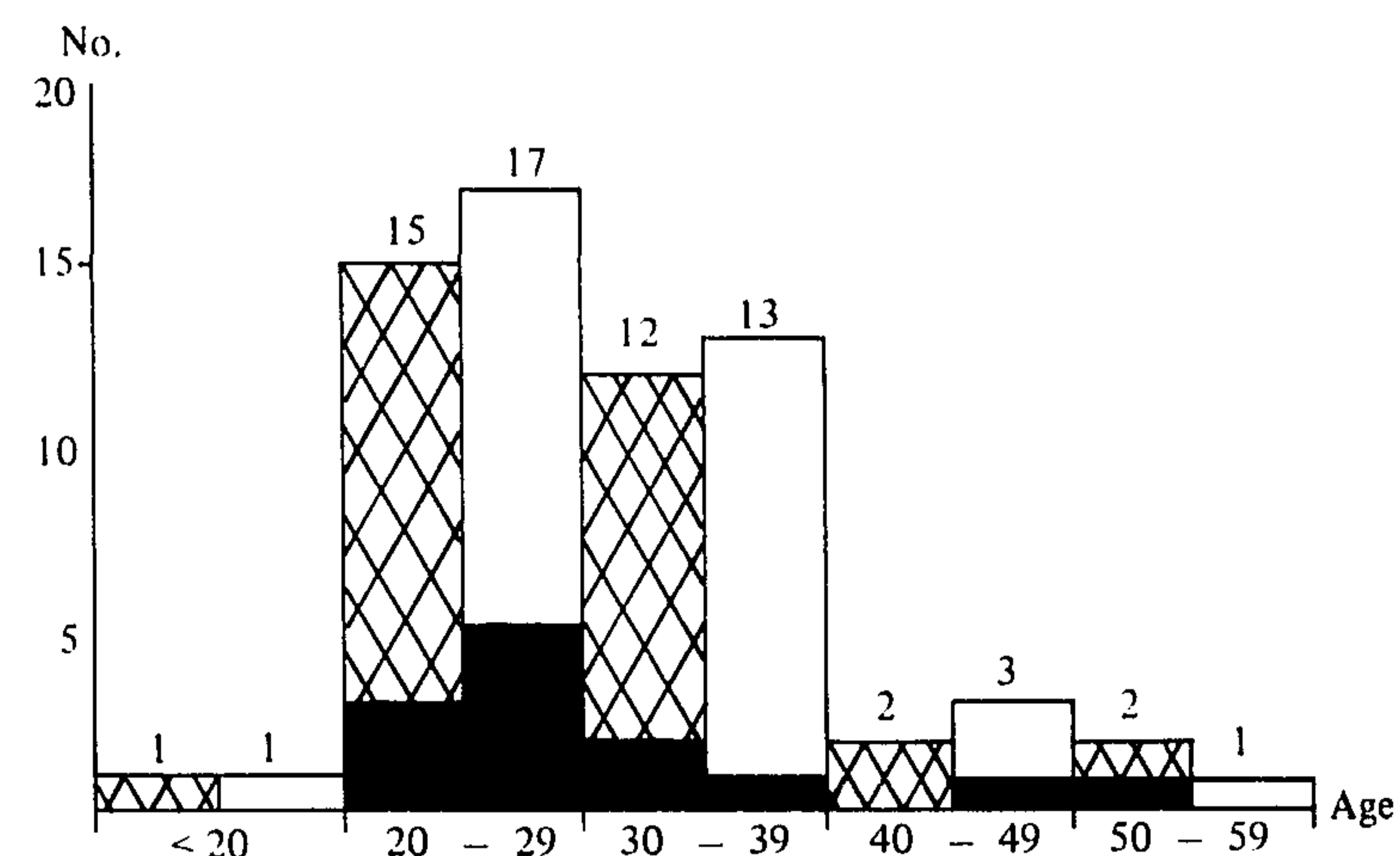


Figure 2: Mental disturbances related to solitary confinement for more than two weeks.

 Mental Disturbances

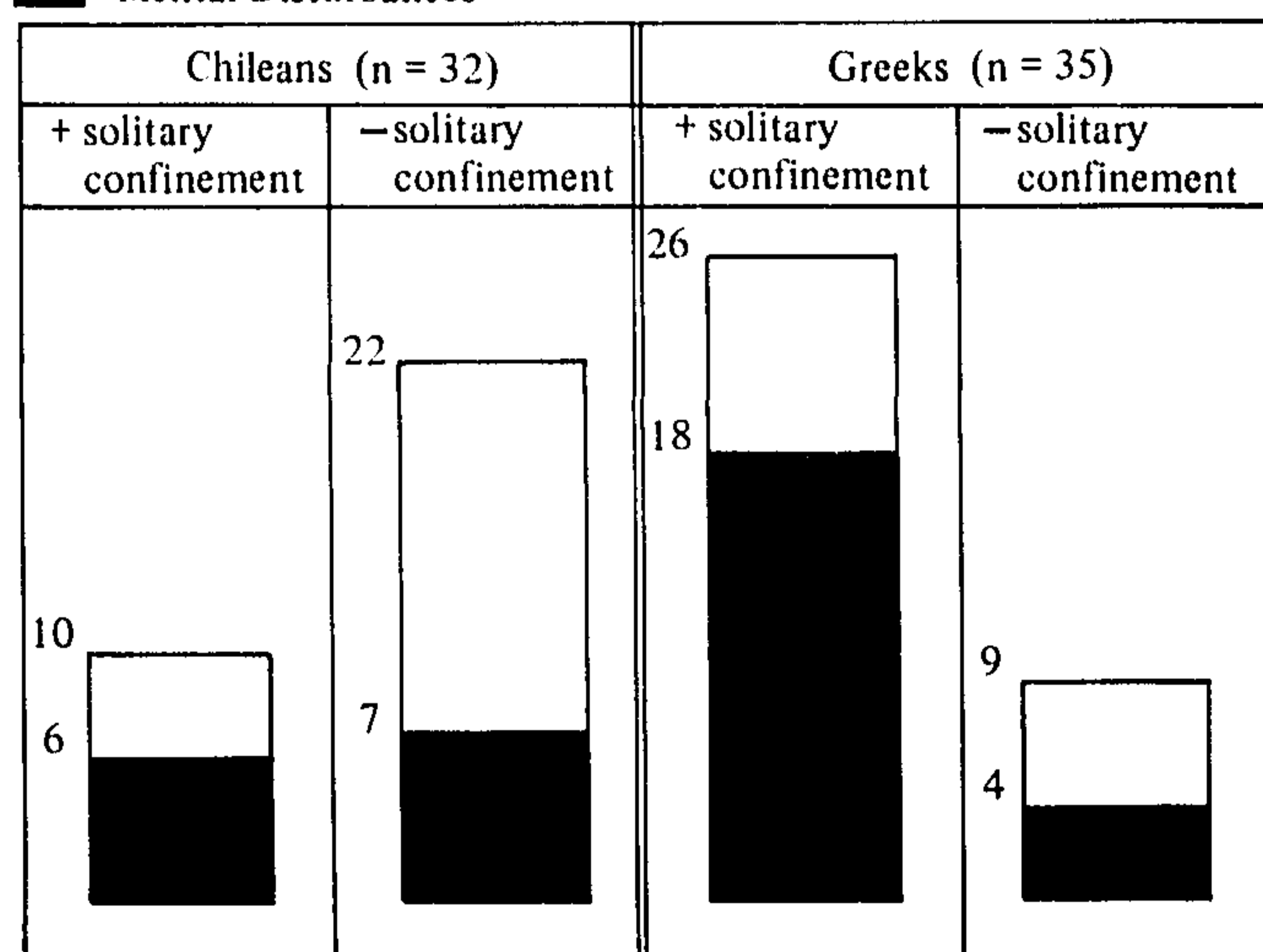


Figure 3: Direct cranial trauma related to sexual disturbances.

 Sexual Disturbances

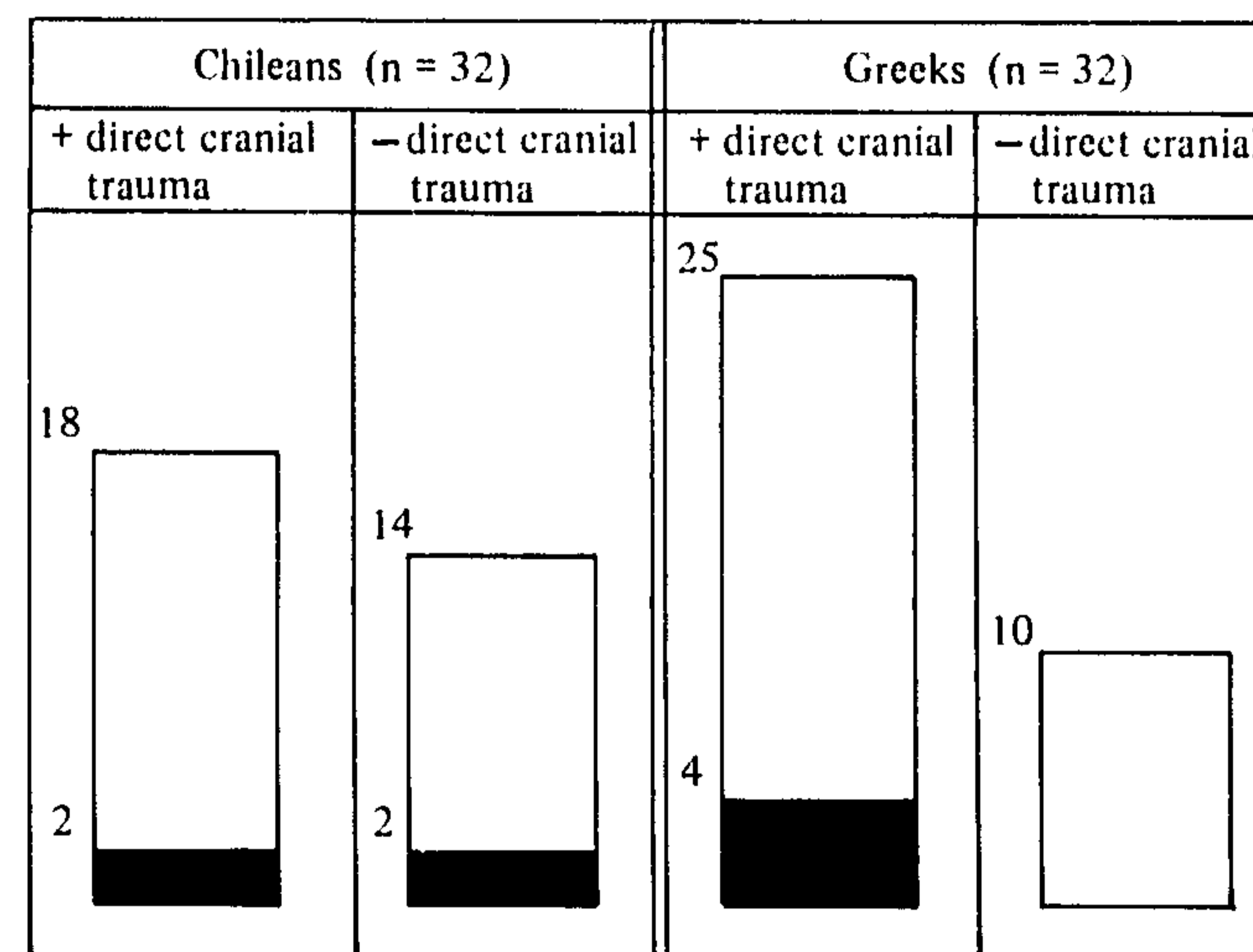


Figure 4: Sexual disturbances did not occur in subjects *not* exposed to cranial trauma or genital trauma.

 Sexual Disturbances

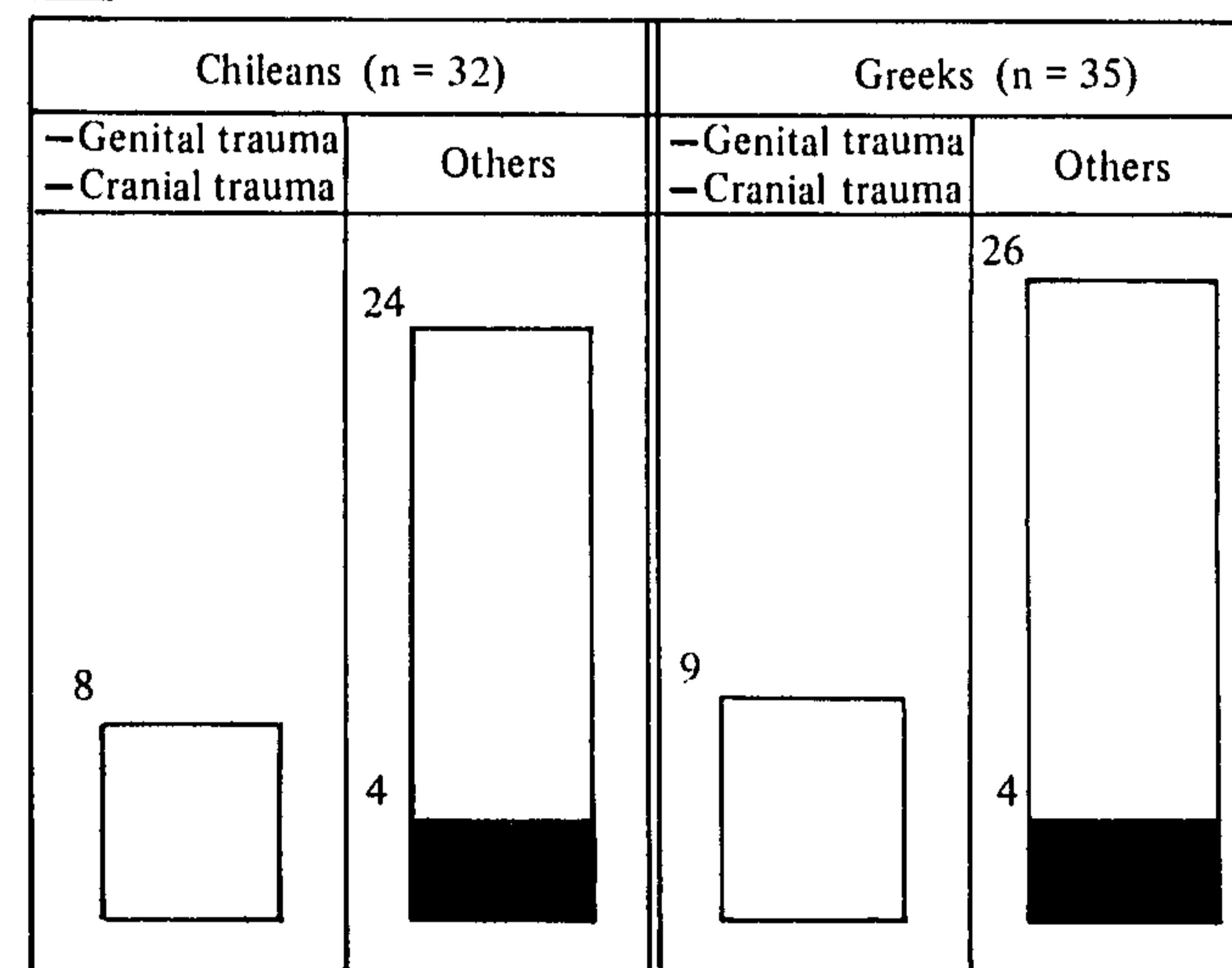


Table I: Methods of Torture

	Chileans n = 32	Greeks n = 35	Total n = 67
Beating	30	33	63
Direct cranial trauma	18	25	43
<i>Falanga</i>	0	29	29
Electrical torture	27	5	32
Sleep deprivation > 2 days	4	11	15
Solitary confinement > 2 weeks	10	26	36
Starvation and dehydration > 2 days	5	5	10
Sexual exploitation	2	0	2
Direct genital trauma	17	11	28
Threatening of family and friends	11	11	22
Enforced witnessing or overhearing torture of others	13	12	25
Threats of execution	13	6	19
Pharmacological torture	3	1	4
Tooth torture	3	0	3
Suspension by feet or hands	9	9	18
Water torture	5	4	9
Bright light torture	3	1	4
Other forms of torture	18	20	38

Table II: Symptoms after torture

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

Table III: Mental disturbance

Nature	Chileans n = 17	Greeks n = 23	Total n = 40
Psychosis	1	2	3
Neurosis (depression, anxiety, phobia, hysteria)	10	17	27
Character change (affect lability, irritability, introversion)	10	16	26
Psychosomatic change (lethargy, fatigue)	3	6	9

Table IV: An alternative evaluation of mental symptoms

	Chileans n = 17	Greeks n = 23
Anxiety	5	12
Phobia	0	3
Depression	5	5
Irritability, aggression, lability	11	12
Communication difficulty	1	5

Table V: Objective findings

Manifest sequelae of torture	Chileans n = 21	Greeks n = 24
Neurological	4	9
Mental	2	8
Impaired hearing	3	7
Fractures	5	6
Skin lesions	9	10
Poor dental condition (post-traumatic)	3	1
Gait disturbance/arthrosis	0	10
Diverse	10	2

Victims of Torture in Uruguay and Argentina: Case Studies

by Dr Aage Riis Kjærsgaard

Dr Inge Kemp Geneske

(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 has 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 "planton". 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 "planton" 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;

3. electrical torture (a form called "*picana*") inflicted especially on the chest, the inguinal regions and the proximal, medial areas of the thighs;
4. "*submarino*";
5. cold water showers (it was winter at the time, and they were cold);
6. deprivation of sleep (they were allowed half to one hour's sleep at irregular intervals);
7. deprivation of food;
8. refusal of permission to go to the lavatory;
9. mental torture;
10. rape (the woman was raped twice in front of her companions).

After seven days of torture, the victims were freed. They were taken out of the house, still blindfolded, and told that they would be shot. They heard guns being cocked. They were then told to leave the country within 24 hours, otherwise they would be re-captured.

On first examination, all three complained of the following symptoms: impairment of memory, anxiety, depression, nightmares and irritability. The symptomatic sequelae of previous torture—headaches, gastritis, dyspnoea and pain in the extremities—were exacerbated. The men now also suffered from gastritis and all were anorexic. The woman had amenorrhoea (having previously menstruated regularly), and pain in one ear following "*submarino*".

The positive *objective* findings were as follows: all were emaciated, nervous, had tremors and were restless. The two men had depression fractures of the skull, and the teeth of the 25-year-old man in particular were in a very bad condition; also the mobility of his right shoulder and arm was impaired. The woman had a small, soft, diffuse thyroid enlargement. She was euthyroid.

All three had marks on their skin, corresponding to burns with cigarettes and electrical equipment. Scars of cigarette burns were evident on all three on the dorsum of the hands, on the forearms, the abdomen and thighs. As many as 40 burns on the hand alone were counted on patient No. III (figure 1). The scars were round, 5-7 mm. in diameter, whitish brown, and occasionally with substance loss.

The electrical ("*picana*") scars were round, approximately 1 mm. in diameter, reddish, and not elevated. Ten to 20 such scars were seen in oval formations mainly on the chest (breasts), but also in the inguinal regions and most proximal on the thighs. The woman also had electrical burns over the thoracic vertebrae (figures 2, 3A and 3B). There were other scars from five to 15 mm. in diameter, mainly on the legs.

Spread rhonchi were heard on stethoscopic examination of the woman.

All three had epigastric palpation pain.

Other clinical findings, bloodpressure and pulse, were normal.

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 Chileans and Greeks who had been tortured.

This first-hand experience enables the authors to conclude that stigmata found on clinical examination of the three Uruguayans closely resemble the stigmata of cigarette burns and electrical torture, which they had previously seen.

The descriptions of their torture given by the victims were very similar to those already heard from other victims who participated in the larger study.

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.

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Figure 1: Sequelae of cigarette burns.

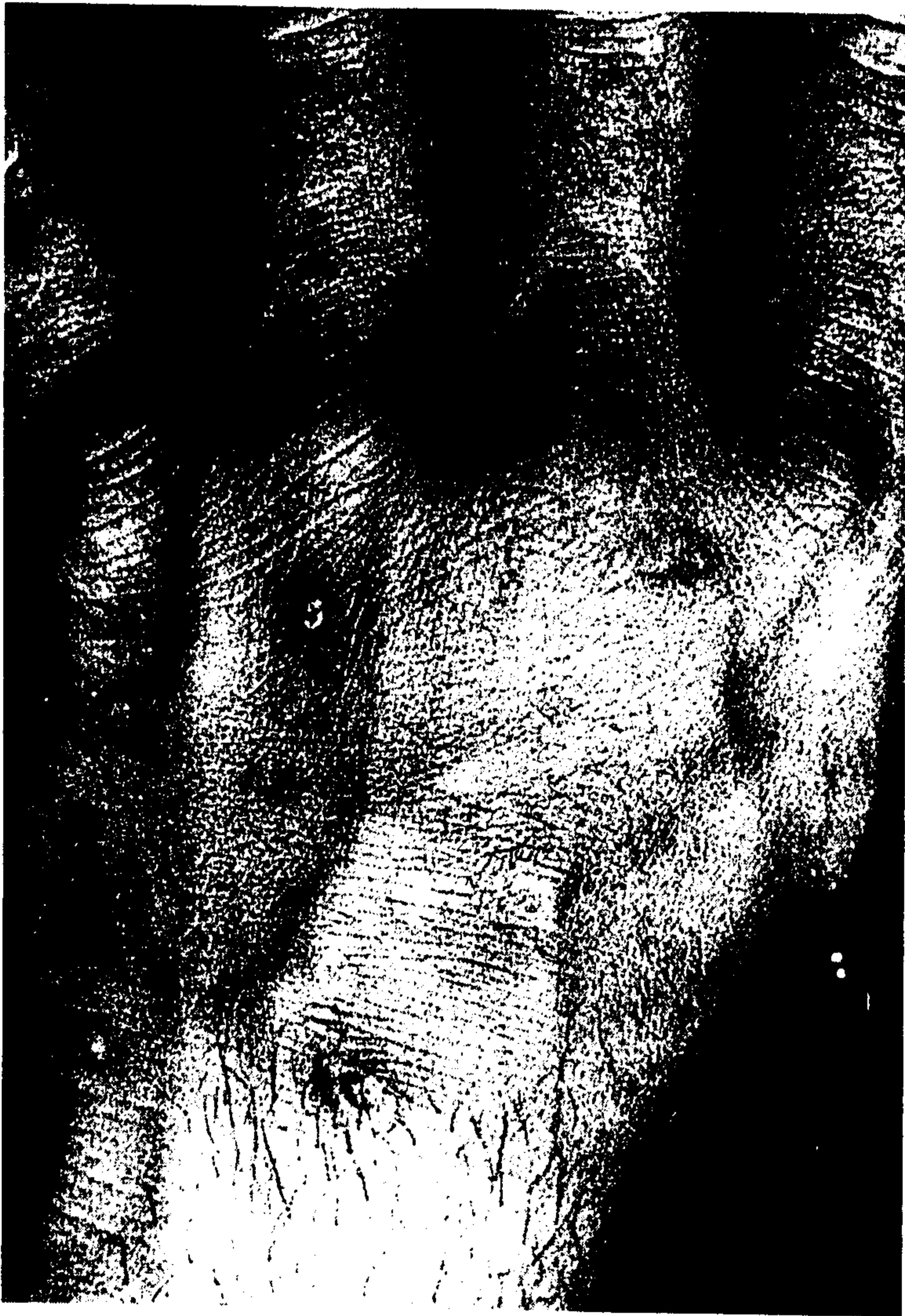
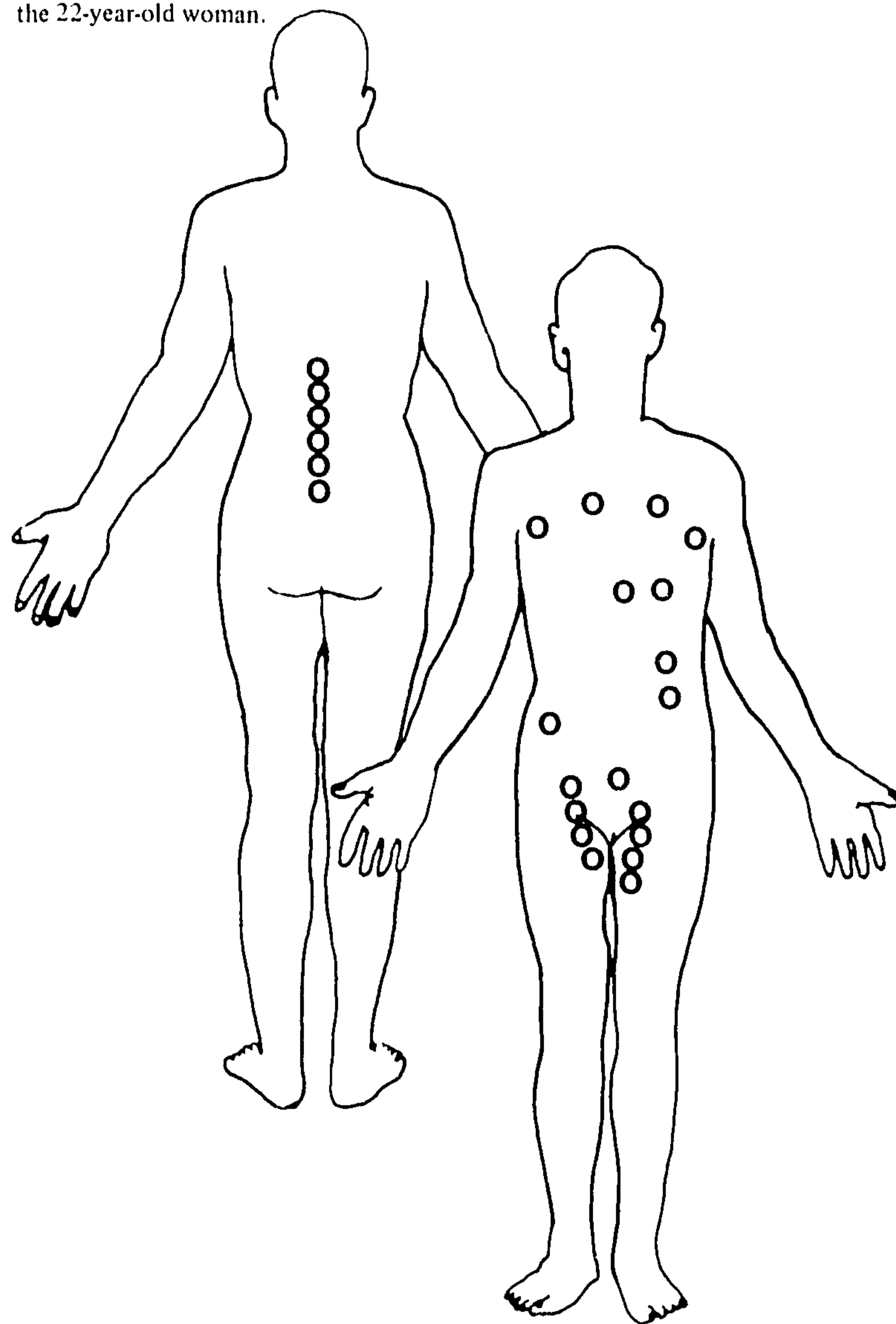


Figure 2: Sequelae of electrical burns ("picana")



Figure 3A and B: Parts of the body where electrical burn torture was inflicted on the 22-year-old woman.



A Study of an Instrument Used for Electrical Torture

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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 (protropatic) because it has been shown that the former is transmitted by thin myelinated group III neurites, while the latter is transmitted by unmyelinated 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 salicylic 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). 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 Rating 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 cardiometer 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 volunteers were asked to report: first, awareness of the stimulus; second, the moment when the stimulus felt painful; third, the moment when the pain became intolerable. Galvanic skin conductance and pulse frequency were registered throughout the study.

The control stimulus study was conducted as follows: an 18 cm. broad sphygmomanometer cuff was placed on the right upper arm and inflated to

approximately 5.0 mm. Hg above systolic blood pressure. The volunteers then made strong pumping motions with their right hands until the setting in of constant ischaemic pain, which occurred from two to five minutes later. They then compared the pain with that experienced under maximum stimulus by the "shock baton". Results were expressed with reference to an ischaemic pain grading of 1.00.

Results

The results are summarized in Table 1, which records the strength of those stimuli that could just be felt and of those that caused pain. All volunteers tolerated maximum "shock baton" stimulus. Their comparative evaluation of ischaemic and electrical pain is recorded in Table II, which also records the increases in skin conductance and pulse frequency.

Two volunteers (nos. 1 and 2) described the pain as intolerable, and one (no. 3) had no convincing experience of pain. In general, "baton" pain was of the same order as ischaemic pain. Galvanic skin conductance increased (from 0.00 mho to 1.40 mho) just after stimulation, and increased in those individuals who described the pain as intolerable. Pulse frequency increase was modest overall: from 0 to 15 percent.

In four cases, the "baton" electrodes were moved over the abdominal wall during stimulation. Stimulus intensity was set at 13 mA-half maximum. All the subjects reported that the resulting pain was similar to or worse than that experienced during maximum stimulation with stationary electrodes.

Maximum stimuli caused muscle contraction over a radius of approximately 5 cm. The skin under the electrodes was reddened, but this colour disappeared after approximately 10 minutes, leaving no trace.

Discussion

Pain inflicted by an instrument used for torture was compared with pain caused by muscle work under local ischaemia. The nature of the pain was different—sharp and local, and dull and diffuse, respectively—but the subject's evaluation was reproducible.

The torture instrument left no marks, and the modest power of 0.9 watts makes any tissue destruction unlikely. Probably therefore the sensation of pain reflects direct stimulus of receptors or neurites.

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 siting 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 Rating 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.

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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".



Figure 3: Pattern of the stimulation impulse. At a resistance of 22 kohm the "baton" gives a peak flow of 27mA.

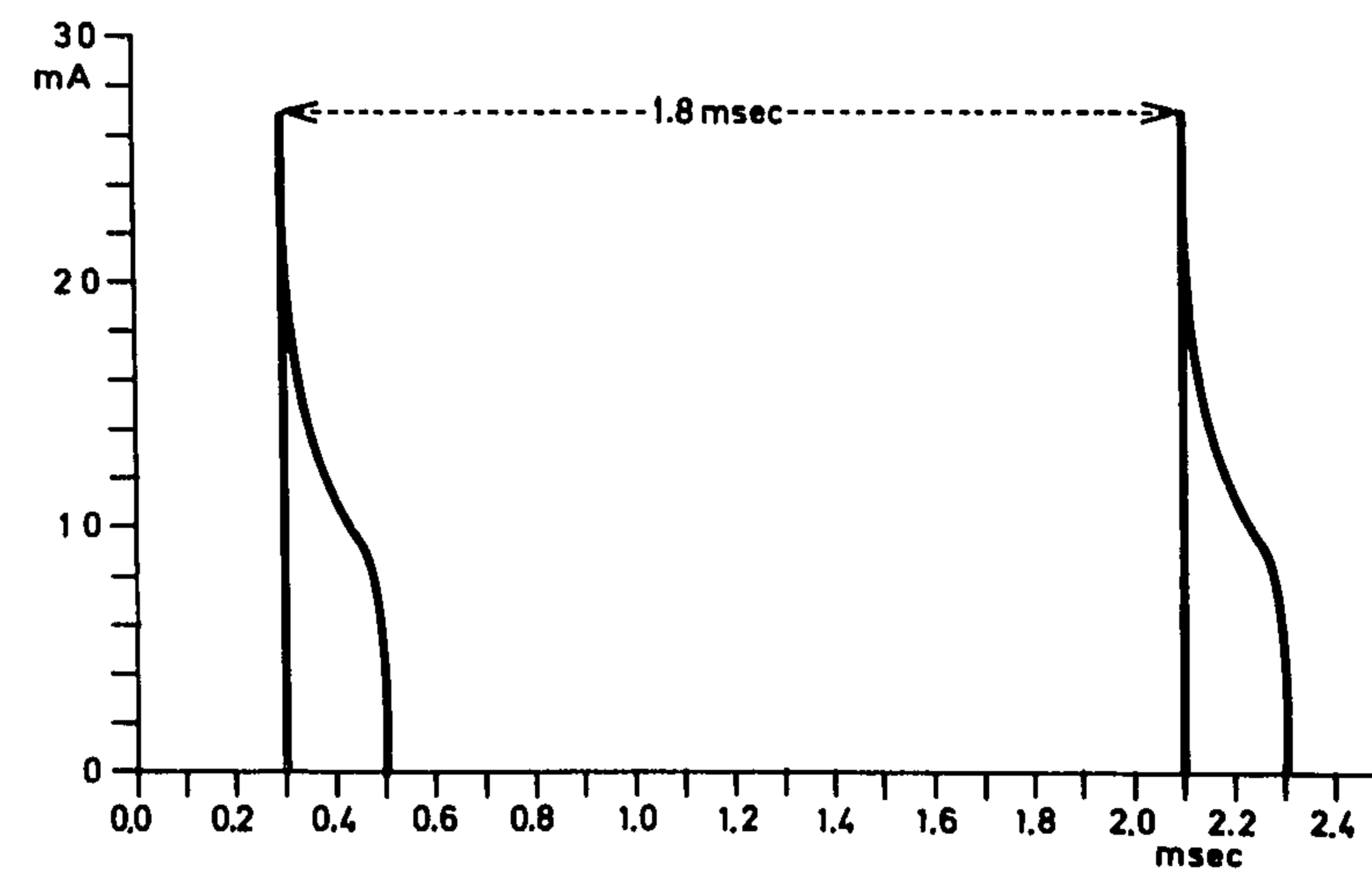


Table I: Strength of stimulus in milliamperes at the moment when subjects first felt the stimulus, and at the moment when the stimulus caused pain.

Volunteers	1	2	3	4	5	6
Stimulus felt	2.2	2.2	2.2	2.7	3.5	1.3
Stimulus gave pain	20	24	—	20	18	24

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.

Volunteers	1	2	3	4	5	6	Average
Maximum pain from electrical stimulus	1.33	0.67	1.33	0.57	1.00	1.11	1.00
Increase in skin conductivity (μohm)	1.40	0.70	0.10	0.00	0.05	0.28	
Pulse rate increase—%	8	15	4	7	0	5	

Glossary of Medical Terms

ACETYLSALICYLIC ACID	aspirin
AETIOLOGY	branch of medical science dealing with the causes of disease
AMENORRHOEA	absence or suppression of menstruation during the time of life when it should occur
ANALGETICS	drugs or other measures which cause temporary relief of pain
ANGINA PECTORIS	violent paroxysm of painful sensations in the chest
ANOREXIC	suffering from anorexia or loss of appetite
ARTHROSIS	joint affection
ATROPHY	state of wasting due to some interference with the function of healthy nutrition
AXIS	second cervical vertebra of the spinal column
BILATERAL	affecting two sides of the body
BIOPSY	removal and examination of tissue from the living body for diagnostic purposes
CARDIOPULMONARY	pertaining to both heart and lungs
CARDIOTACHOMETER	instrument for determining rapidity of heart-beat
CLAUDICATION, intermittent	severe pain in the calf muscles occurring during walking but which subsides with rest
CONDUCTANCE	conducting ability of a body or a circuit for electricity
CRANIAL	pertaining to the skull
DISTAL	furthest from the center, from a medial line or from the trunk
DORSUM	the back
DYSFUNCTION	absence of complete normal function
DYSPNOEA	difficulty in breathing
ENCEPHALOPATHY	any dysfunction of the brain
EPICRITIC	pertaining to extreme sensibility such as that of the skin when it discriminates between degrees of sensation caused by touch or temperature
EPIGASTRIC	pertaining to the region over the pit of the stomach

EUTHYROID	having a normally functioning thyroid gland
FEMUR	bone of the thigh; the largest and strongest bone in the body
GALVANIC	pertaining to galvanism (the therapeutic use of direct current of electricity)
GASTRITIS	inflammation of the stomach
GONAD	generic term referring to both the female sex glands, or ovaries, and the male sex glands, or testes
HYPOPHYSIS	pituitary gland
HYPOTHALAMUS	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
INGUINAL	pertaining to the region of the groin or lower part of abdomen on each side of the body
ISCHAEMIA	local obstruction of the blood circulation to a part of the body
KZ SYNDROME	complex of physical and mental after effects of imprisonment in World War II concentration camps
LABILITY	state of being unstable or changeable
LESION	an injury; any disease changes in organs and tissues
LIMBIC	pertaining to a limbus or border
LUMBAR VERTEBRAE	five bones of spinal column situated in the loins
MANDIBLE	bone of the lower jaw
MEDIAL	pertaining to the middle, nearer the medial line
MORPHINE	main alkaloid found in opium
"MUSELMAN"	emaciated concentration camp prisoner
MYELINIZED	occurrence of white fat-like substance forming a sheath around myelinated nerve fibres
NEURITES	nerve fibres
NEUROPATHY	any disease of the nerves
OEDEMA	dropsical swelling
ORBITAL	concerning the orbit, or the bony pyramid-shaped cavity of the skull which holds the eyeball

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, indiscriminating
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

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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.

