# ORIGINAL ARTICLE

# B. Karger · A. DuChesne · Ch. Ortmann B. Brinkmann Unusual self-inflicted injuries simulating a criminal offence

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Abstract A total of 14 cases with self-inflicted injuries intended to simulate a criminal offence are reported. Typical characteristics of self-infliction such as superficiality, localisation at the anterior aspect, parallel course or avoidance of areas with high sensitivity to pain are substantiated by most of the cases analysed. However, the majority of cases also comprised atypical features including large hematomas of the extremities, a gaping cut wound, lip laceration, hematoma of the eyelids, concussion of the brain, large burn injuries and signs of bonding. Therefore, atypical injuries, which are either found in isolation or in combination with typical injury patterns, cannot exclude self-infliction. Initially, most "victims" did not intend to report the matter to the police but the persons whose affection was to be obtained made the report. Psychopathological motivations are predominant but rational motives such as attempted insurance fraud also occur.

**Key words** Self-inflicted injuries · Atypical injuries · Wound morphology

# Introduction

Strassmann (1910) described common features of self-inflicted wounds intended to simulate a bodily crime such as superficiality and localisation at the anterior aspect. A typical pattern of findings (Table 1) has been elaborated since (e.g. Lochte 1913; Smith and Fiddes 1949; Knight 1968; Schulz et al. 1981; König et al. 1987; Pollak et al. 1987; Püschel et al. 1994), which frequently forms the basis for distinguishing self-infliction from injuries resulting from an attack. However, considerable deviations from this "superindividual" pattern and also combinations of typical and atypical lesions were observed in a subgroup

#### Table 1 Characteristics of typical self-inflicted injuries

- localisation in body regions which are easily accessible to the dominant hand
- preference of arms/hands and ventral trunk
- sparing of areas very sensitive to pain such as lips, eyes or nipples
- symmetry
- no defence or fixing injuries
- multiple superficial scratches or cuts
- grouped and/or parallel injuries
- signs of repeated self-inflicted injuries
- lack of blunt trauma
- lack of corresponding clothing defects

of such cases investigated at our Institute. These deviations had initially raised doubts as to the nature of self-infliction. Therefore, all relevant cases occurring between 1976 and 1995 were analysed together with the police records. Apart from a subseries of similar size where strong suspicion was raised but could not be confirmed, a total of 14 cases remained where the self-infliction was either admitted or where the statement could be disproven by the police records and/or the medico-legal findings and expertises. These 14 cases will be reported and discussed in comparison to the literature and with special reference to atypical patterns of injury.

# Case reports

Case 1

A 24-year-old man who had been adopted as a child. Attempted suicide at the age of 14. Recent rejection by a young woman.

#### Putative story:

By chance, he had overheard one Turkish man tell another that he had mailed a box of poisoned chocolates to the aforementioned woman. When he confronted the men on the street, they attacked him with a torch and set him on fire. He later tried to prevent the

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Fig.1 Self-inflicted burns from lighter gas (case 1)

woman from eating the chocolates which she had actually received.

#### Injuries:

I.–II.° burns of approximately 15% of the body surface: thighs, buttocks (Fig. 1), genitals and left middle finger. The trousers and underpants were burnt and melted at corresponding areas.

#### Confession:

Self-burning with lighter gas. Stealing of the venom a few weeks before, administration of the venom to the chocolates and dispatch by mail.

# Case 2

A 26-year-old unemployed man with financial problems. A few months before the incident, his girl friend had abandoned him.

#### Putative story:

Armed robbery from two "perpetrators", stab wound to the left chest.

## Injuries:

Two superficial cuts at the left chest and several grouped cuts in the precardiac area. One gaping cut wound from the right to the left nipple which necessitated surgery.

## Confession:

Attempted suicide, afterwards feigning an armed robbery in order to obtain money from the social welfare office.

# Case 3

A 25-year-old nurse with one child. Her friend had repeatedly threatened to abandon her.

# Putative story:

A brief acquaintance tried to force her to leave her boy friend, which she refused. The man then raped her in his apartment. Two

months later repetition of the rape and also attack with a knife by the same man. Constant telephone harassment at the apartment of her friend.

#### Injuries:

Small hematomas on both elbows and on the flexor side of the left forearm. Several closely grouped scratches of the dermis at the right neck region which ascended dorsally. Grouped, parallel and intersecting scratches at the back of the left hand.

## Further continuation:

Subsequently, repeated raping and bodily harm including bonding by the same "perpetrator" (clinician: "multiple small hematomas"). Threatening letter: "I will mutilate you until you cannot satisfy me or another man any more."

#### Police findings:

The woman was not able to find the apartment of the "perpetrator" although she had allegedly been there several times. The telephone harassment had been performed from the telephone connection of the woman herself. Attempted suicide shortly before the first "rape", repeated attempted suicides when her friend threatened to leave her.

#### Case 4

A 25-year-old Turkish forklift truck driver with financial problems. His wife abandoned him 4 months before the incident.

#### Putative story:

He was attacked at night on the street in front of his house by three men armed with a flick knife, baseball bats, a spray can and tear gas. The aggressors kicked him with shoes and fists and afterwards damaged his apartment.

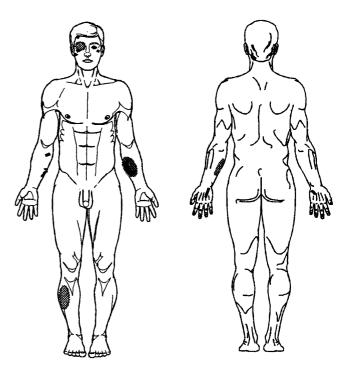


Fig. 2 Position of self-inflicted injuries in case 4

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**Fig. 3a, b** Multiple and superficial scratch injuries in a young woman (case 5). The single scratch injuries at the back frequently take an arched course



# Injuries (Fig. 2):

Colouring and reddening of the face, signs of hypothermia including shivering. Small scratches of the dermis at the right cheek, the left forearm and both hands. Two incisions (5 cm in length) on the right forearm. Hematomas of the right eyelids, the right lower leg  $(12 \times 5 \text{ cm})$  and the left forearm  $(10 \times 4 \text{ cm})$ , the latter involving erosions and small excoriations of the skin allegedly originating from a fist.

#### Confession:

Attempted insurance fraud. In advance, he had sent xenophobic threatening letters to the neighbourhood. Together with a friend, he damaged his furniture and sprayed right-wing slogans to the walls. They sprayed varnish to his face, painted a swastika to his forehead with a felt pen and incised his right forearm with a knife. At roadworks close to his apartment he injured himself at the legs and arms with a brick and sprayed tear gas to his face. Afterwards, his brother-in-law found him "unconscious" close to the roadworks. The man received a 9 months suspended sentence for joint fraud and feigning of a criminal offence.

Case 5

A 30-year-old woman.

## Putative story:

She was attacked by a stranger 5 days previously who cut her with a knife, beat her with the fist and inserted a wire into the vagina. Refusal to provide additional information to the police.

## Injuries:

Bleeding from the uterus without additional genital injuries, numerous scratches on the ventral and dorsal trunk sparing the breasts and buttocks (Fig. 3a,b). Hematoma ( $5 \times 3$  cm) on the left thigh, hematoma (12 cm in diameter) above the right iliac crest.

## Police report:

Statement not in accordance with objective findings.

The remaining 9 cases are summarized in Table 2.

## Discussion

The self-inflicted nature of the injuries has been verified in the 14 cases reported. Of these, nine involved females 15–30 years of age including four who described being raped in addition. A predominance of young women has been substantiated before (e.g. Mayer 1937; McKerracher et al. 1968; Sneddon and Sneddon 1975; Schulz et al. 1981; König et al. 1987). Similar to König et al. (1987), half of the women (5 out of 9) reported having resisted the "perpetrator" whereas the women investigated by Schulz et al. (1981) were allegedly helpless. Case reports on men or elderly women are rare (Holzer 1969) but in this study, 5 out of 14 "victims" were male.

Most cases in our series show lesions and patterns that are in accordance with the literature (Table 1). However, there also exist injuries that grossly differ from this typical injury pattern with regard to the type, the site and the mode of occurrence. This subgroup requires special attention because it can be the source of errors and misinterpretations.

Typical patterns and injuries

 Multiple and superficial scratches, cuts or streaky reddenings, mostly grouped and/or in parallel arrangement are caused by sharp or semi-sharp (e.g. fingernails) mechanisms of low intensity (cases 3, 5, 6, 8, 9, 11–14). The maximum number of single wounds of this type was 150 (case 5). Table 2a Case 6. A 21-yearold nurse. Putative story: Assault at night by a man. Injuries: Scratches, superficial cuts and hematomas at both cheeks, scratch at the back of the left hand. Motivation: Her friend had abandoned her. Initially, she refused to report to the police

*Case* 7. A 22-year-old man. Putative story: Beaten and robbed by two strangers at night a few days before. Injuries: Cicatrizing cut wounds. Motivation unclear. The clothing showed corresponding defects, the weapon used was broken glass

*Case 8.* An 18-year-old woman. Putative story: Blow on the head in a washhouse. Regained consciousness in a car, raped by two men. In-juries: Bruise 2.5 cm in diameter at the back of the head, skin abrasions, fingernail scratches at the back, small hematomas at both hips. Motivation unclear. The clothing was slightly torn. Incompatibilities of statement with injuries and other known facts

*Case 9.* A 15-year-old foreign girl. Putative story: Assault from 3 or 4 men who scratched something to her forehead. In-juries: Scratch injuries including a swastika-like symbol (Fig. 4). Motivation: Problems with parents, confessed to repeated self-inflicted wounding

*Case 10.* A 19-year-old woman. Putative story: Assault in a cellar by a man who obstructed the airways openings with a cloth. Regained consciousness hours later, bonding. Injuries: Discrete reddenings. Motivation: Afraid of punishment after playing truant

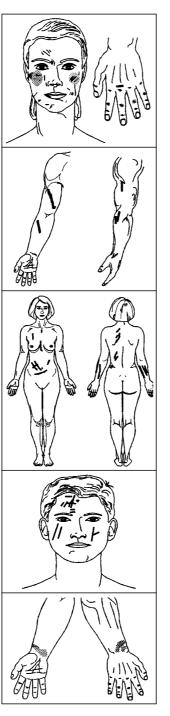
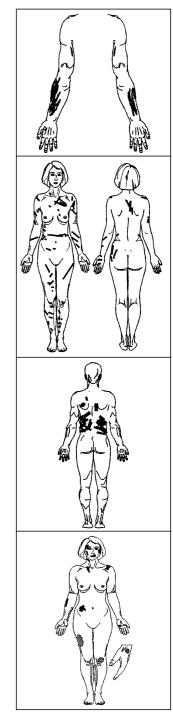


Table 2b Case 11. An 18year-old woman. Putative story: Assault by a man on her way to work. Injuries: Long scratches at both arms. Fresh thermal scar similar to the impression of a belt buckle at the back of the left hand. Motivation unclear, the collar of the T-shirt was torn

*Case 12*. A 20-year-old woman, attempted suicide before. Putative story: A man who had raped her weeks before raped her again and injured her with a knife ("not a kitchen knife"). Injuries: Multiple superficial scratches (depth increasing towards the centre of the body) sparing the head, genitals and breasts. Scars from scratches at the back of the hands. Possible motivation: Sexual abuse as a child. The weapon used was a kitchen knife

*Case 13*. A 25-year-old prisoner, convicted of murder. Putative story: Torture from a prison ward for 5 min with a heated knife and cigarettes. Report to the police weeks later. Injuries: Scars, most likely from incisions. Thermal injury at the left shoulder. Motivation: denial of television, tendencies to phantasize. Incompatibilities as to time and place of alleged torture

*Case 14.* An 18-year-old woman. Putative story: Attacked by 3 or 4 men, fell, regained consciousness in a hospital. Injuries: Commotio cerebri, multiple scratches (single and grouped) (Fig. 7), abrasions of the left hand, right forearm and left knee, laceration of the inferior lip, hematoma ( $10 \times 5$  cm) at the right thigh. Motivation unclear, deliberate falls



- The injuries are mainly situated in regions of the body which are easily accessible with a hand, i.e. the anterior trunk, the face and the arms (cases 2, 3, 7, 8, 11, 12, 14).
- Body regions very sensitive to pain such as the lips, the eyes, the genitals or the nipples are spared from injuries (cases 2, 3, 5–13).
- Injuries typical for defence, fixing by an aggressor or from a hard substrate are absent (cases 1, 2, 4, 6–9, 11–14).
- Signs of blunt force are absent or are very discrete because of forces of low intensity (cases 1, 2, 3, 7, 9–13).
- Symbolic patterns of injury such as a swastika (Fig. 4) (cases 4, 9).
- The clothing does not show defects corresponding to the injuries (e.g. cases 6, 12).
- Signs of repeated self-inflicted wounds such as scars (Figs. 5, 6) (cases 3, 9, 12, 14)
- In a large number of single cut wounds, the depth of the incision regularly decreases towards one end (Fig. 5).
- Symmetry of the injury pattern (cases 5, 7, 9, 11, 13) and/or predominance of the left hand/arm in righthanded individuals and vice versa (cases 6, 12).

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Fig.4 Symbol on the forehead of a girl (case 9) similar to a reversed swastika. The reverse character can be explained by scratching in front of a mirror

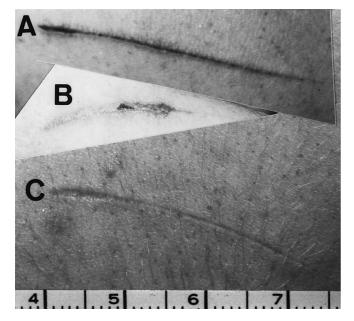


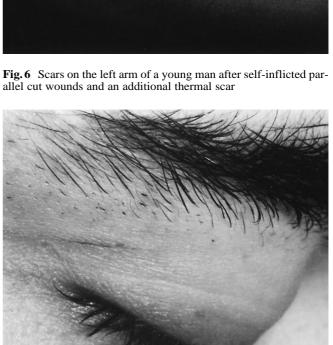
Fig.5 Superimposition of uniform cut injuries of different age due to repeated behavior (case 12). A: Fresh injury. B: Beginning scar formation. C: Scar. The depth of the injuries regularly decreases towards one end

Atypical patterns and injuries

- Injuries located at the back, which is not within reach or sight (cases 5, 8, 12, 13). The wounds at the back frequently take an arched course since the arm is moved in a similar way to a pair of compasses (Fig. 3b).
- Male "victims" (cases 1, 2, 4, 7, 13).
- Deep and even gaping incisions with subsequent scar formation (cases 2, 4, 7, 13). All of these persons were male.

Fig.7 Self-inflicted scratch wound involving the right upper eyelid (case 14)

- Blunt force of considerable intensity: hematomas of the eyelids, the lower leg (12  $\times$  5 cm) and the forearm (10  $\times$ 4 cm) (case 4); hematomas on the thigh  $(5 \times 3 \text{ cm})$  and the hip (12 cm in diameter) (case 5); hematomas of both cheeks (case 6); bruise of the occiput 2.5 cm in diameter (case 8); laceration of the lip, abrasion of the skin of the knee, hematoma of the thigh  $(10 \times 5 \text{ cm})$ , concussion of the brain (case 14). This distribution of blunt force does not conform to the typical sites of selfinflicted injuries and it does not spare regions sensitive to pain such as lips or eyelids (Fig. 7). Thus even mas-





sive or very painful blunt force or effects thereof such as commotio cerebri do not exclude self-infliction.

- Injuries compatible with bonding or fixing by the "aggressor" (cases 3, 10).
- Assymmetry of the injury pattern that cannot be explained by the right or left handed nature of the person (case 14).
- Massive thermal injuries. Cigarette burns can be considered typical self-inflicted injuries (cases 9, 11) but burning of approximately 15% of the body surface (case 1) can also occur.
- Defects in the clothing corresponding to the injuries. Although the original clothing was not available in every case, cases 1, 7, 8 and 11 showed such clothing defects.

The high specificity of the "typical injury pattern" is well established (e.g. Smith and Fiddes 1949; Pollak et al. 1987; König et al. 1987; Metter 1989; Püschel et al. 1994). But often self-infliction is only suspected if these typical findings are present. Consequently, the diagnostic and evidential value of these patterns can be disadvantageous to the detection of the much more heterogeneous "atypical" group. It would therefore appear that a considerable number of successful deceptions, especially cases with atypical injuries, eludes solving.

An exploration as to the motivation of the individuals was not performed but it appears obvious that psychopathological aspects play an important role and similar features have been published in the psychiatric literature (McKerracher et al. 1968; Sneddon and Sneddon 1975; Sachsse 1987). Accordingly, three women (cases 3, 6, 12) and two men (cases 1, 2) had attempted suicide before and none of the injured persons had a stable relationship at the time of the incident. An appeal for affection (Pollak et al. 1987; Püschel et al. 1994) is reflected especially by the use of right-wing symbols in cases 4 and 8. A successful deception including secondary gain can seduce into repeated behavior (cases 3, 9) and parasuicidal wounds can be precursors of real suicidal attempts (case 3) (Pollak et al. 1987; Holitzner 1993). Rational motives prevailed in case 4 where a man tried to substantiate an insurance fraud planned for weeks by self-inflicting mainly atypical wounds and another man afterwards presented a deep cut wound to obtain compensation payments (case 2).

The police were contacted by a third party (relatives, friends or physicians) in all cases except for case 3, where the woman was urged to report by family members several days after the incident. In case 4, the brother-in-law preempted the "victim" in reporting. Consequently, the primary intention of most persons is not to fake a criminal

offence but to gain affection. The incident only obtains the character of a relevant criminal deception in retrospect if the "victim" is pressured into reporting to the police. This is also important for the primary criminalistic evaluation.

So in conclusion, injury patterns typical for self-infliction are a helpful guide. However, self-inflicted lesions intended to simulate a criminal offence also occur in atypical injury patterns and with atypical motivations. This should be considered when investigating such cases. An examination of the scene, a reconstruction of the alleged assault and an open-minded evaluation of the injury pattern in comparison to the version of the injured person sould be performed if self-infliction is suspected. In addition, initial reluctance to report to the police is a conspicuous finding in the majority of cases with self-infliction.

# References

- Holitzner V (1993) Zur Dynamik spezieller Formen der Selbstbeschädigung. Psychosom Med Psychoanal 39:319–332
- Holzer FJ (1969) Zur Aufklärung fingierter Überfälle. Arch Kriminol 143:1–6, 96–105
- Knight B (1968) Two cases of self-inflicted injuries in the living. Med Sci Law 8:264–266
- König HG, Freislederer A, Baedeker C, Pedal I (1987) Unterscheidungskriterien f
  ür Selbst- oder Fremdbeibringung von Verletzungen angeblich oder tats
  ächlich 
  Überfallener. Arch Kriminol 180:13–27
- Lochte T (1913) Über Selbstverletzungen. Vjschr Gerichtl Med 45 (Suppl): 261–268
- Mayer J (1937) Handbuch der Artefakte. Gustav Fischer, Jena
- McKerracher DW, Loughname T, Watson RA (1968) Self-mutilation in female psychopaths. Br J Psychiatr 114:829–832
- Metter D (1989) Vortäuschung von Straftaten durch Selbstbeibringung von Verletzungen. Med Sach 1:14–21
- Pollak Š, Reiter C, Stellwag-Carion C (1987) Vortäuschung von Überfällen durch eigenhändig zugefügte Stich- und Schnittwunden. Arch Kriminol 179:81–93
- Püschel K, Kleiber M, Erfurt C (1994) Morphologie und Rekonstruktion des Trauma Vortäuschung einer Straftat durch selbstbeigebrachte Verletzungen. Hautnah Pädiatr 6:170–177
- Sachsse U (1987) Selbstbeschädigung als Selbstfürsorge. Zur intrapersonalen und interpersonellen Psychodynamik schwerer Selbstbeschädigungen der Haut. Forum Psychoanal 51–70
- Schulz F, Naeve W, Hildebrand E, Püschel K (1981) Selbst beigebrachte Hautverletzungen zum Zwecke der Vortäuschung einer Straftat. Acta Dermatol 7:10–16
- Smith S, Fiddes FS (1949) Forensic medicine, 9th edn. Churchill, London, pp 168–173
- Sneddon I, Sneddon J (1975) Self inflicted injury: a follow up study of 43 patients. BMJ 3:527–530
- Strassmann F (1910) Merkmale der behufs Vortäuschung fremden Angriffs bewirkten Selbstverletzungen. Vjschr Gerichtl Med 39 (Suppl): 3–16