

Nasal manifestations of self-destructive behaviour*

S. Rudolph¹, U. Schu², Ch. Herrmann-Lingen³, J.A. Werner¹, B.J. Folz⁴

¹ Dept. of Otolaryngology, Klinikum Giessen und Marburg GmbH, Campus Marburg, Marburg, Germany

² Dept. of Psychiatry and Psychotherapy, Klinikum Giessen und Marburg GmbH, Campus Marburg, Marburg, Germany

³ Dept. of Psychosomatic Medicine, Klinikum Giessen und Marburg GmbH, Campus Marburg, Marburg, Germany

⁴ Dept. of Otolaryngology, Karl-Hansen Medical Center, Bad Lippspringe, Germany

SUMMARY

Self-destructive behaviour is prevalent in a variety of different psychiatric disorders. Most common manifestations are self-inflicted cuts to the skin, especially the skin of the forearms. Manifestations of self-destructive behaviour involving the nasal area are rather rare. A series of cases is presented in which nasal diseases were initially misinterpreted, but could finally be identified as factitious disorders. Presented symptoms were foreign body insertions, hemodynamically relevant epistaxis and impetiginous inflammations of the paravestibular skin of the nose. Factitious disorders of the nose should be identified as such for the following reasons: avoiding unnecessary operations, adequate symptomatic rhinologic therapy and the initiation of psychiatric consultation.

Key words: self mutilation, factitious disorders, epistaxis, borderline syndrome, hereditary hemorrhagic telangiectasia

INTRODUCTION

Self-destructive behaviour can occur within the scope of different psychic and psychiatric disorders. The most common manifestations of self-destructive behaviour are manipulations on the arms and legs, especially incisions on the forearms (Figure 1). With regard to the head and neck region cases have been described of self-inflicted injuries and factitious disorders that occurred in connection with drug abuse. These cases usually involve the intake of drugs or the insertion of respective application instruments⁽¹⁻⁵⁾.

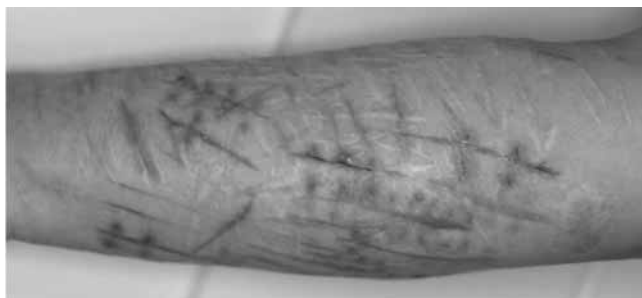


Figure 1. Typical aspect of slashing injuries on the forearm in patients suffering from self-harm.

The present series is a compilation of 4 cases, demonstrating the diversity of self-destructive behaviour in respect of the nose. The case series is meant to raise the awareness of otorhinolaryngologists towards factitious disorders. An increased knowledge about these disorders may help to avoid unnecessary diagnostic measures and invasive procedures. At the same time, professionals should be consulted who can deal with the underlying psychic pathology.

CASE SERIES

Case No. 1

In March 1999, a then 18-year-old female patient presented for the first time with facial pain projecting to the left maxillary sinus. During physical examination and nasal endoscopy a drawing pin was identified in the left nasal cavity. Additional foreign bodies were not visible on plain X-rays of the skull in occipito-mental projection (Figure 2). It was unclear whether the patient had incorporated further foreign bodies within the upper aerodigestive tract. The indication for endoscopy of the upper aerodigestive tract in general anaesthesia was given during which the foreign body could be extracted from the nose and the presence of other foreign bodies could be excluded. Between March 1999 and December 2001 the patient returned to our department repeatedly with the necessity of extracting foreign bodies. A total of 66 events were noted during this



Figure 2. Conventional skull X-ray in o.m. projection. A foreign body (drawing pin) can be seen clearly above the left inferior turbinate.

time frame with different time intervals between the respective interventions. Altogether 68 foreign bodies were retrieved from the nasal cavity, the external auditory canal, the nasopharynx, the oropharynx and the stomach. The foreign bodies comprised drawing pins, razor blades, bits of broken glass and compact discs, pieces of plastic and metal, screws, super glue, latches from soft drink cans, safety pins, batteries, buttons, pieces of knives and rocks (Figure 3). On some occasions the patient had inserted multiple foreign bodies, which were also impacted at other sites than the nose. In 9 events secondary foreign bodies were found in the vagina (3x) and in the gastrointestinal tract (6x). Patient's history revealed a borderline personality disorder related to abuse in her childhood, hereditary epilepsy and mental retardation. Retardation had become evident at the age of seven and since then the patient had been raised in mental health institutions for children and adolescents. In these institutions, the patient was conspicuous because of emotionally unstable behaviour with signs of dependency, somatisation, self-destructive behaviour and complex seizures, which later changed to psychogenic seizures. Self-manipulation had begun when the patient was 16 and the number of events increased gradually. The patient inserted for-



Figure 3. An assortment of different foreign bodies, which could all be retrieved from the nasal cavity of patient 1 on several occasions.

eign bodies in multiple locations, i.e. the vagina, the nose, the external auditory canal, the rectum and the eyes. Generally there was a high correlation between the statements of the patient about the number and location of the inserted foreign bodies and the actually retrieved foreign bodies. On six occasions only no foreign body could be found despite the patient claiming self-harm again. For diagnostic and therapeutic purposes the patient had to be admitted for inpatient treatment on six occasions and the foreign bodies had to be retrieved under general anaesthesia or sedation on 23 occasions. The rest of the foreign bodies had to be removed in outpatient procedures under local anaesthesia. Consulting psychiatrists were always part of the therapeutic team. Directly after the incident the patient had to wear gloves, intended to prevent further foreign body insertions. Restraining the hands, however, was only possible for several hours until the restraints had to be released. Compulsory hospitalisation to a psychiatric ward was discouraged, as it would have deteriorated the mental state of the patient. Despite psychiatric support the mental condition of the patient became progressively worse and she finally had to be permanently transferred to a mental health institution. Telephone enquiries about the further condition of the patient remained unanswered by the institution claiming confidentiality issues. Since December 2001, however, the patient has not been presented again for removal of foreign bodies.

Case No. 2

A 31 year-old female was admitted to the hospital because of nasal breathing obstruction and signs of chronic sinusitis. The patient's complaints had not responded to conservative treatment and therefore surgery was scheduled. Preoperatively a perforation of the nasal septum was evident, which could also be seen on the coronal planes of the CT scan (Figure 4). There were no signs of vasculitis (i.e. Wegener's disease) or abuse of



Figure 4. Computed tomography of the mid-face, coronal sections. The perforation of the anterior nasal septum can be seen clearly. The patient had stated that the perforation was due to a nasal ring, which she was forced to wear during childhood. Whether this statement correlated with the actual event of abuse during childhood could not be verified.

cocaine or nose drops. The mucosa above the perforation did not show signs of irritation. The patient explained the perforation as being a consequence of a trauma in childhood. She specifically stated that a ring had been pierced through her nasal septum.

Endonasal sinus surgery was uneventful, but postoperatively the patient repeatedly showed anxiety attacks. A psychiatric consultation was called for and it was recommended to sedate the patient. The further inpatient stay was uneventful and the patient was discharged on the 5th postoperative day. The patient returned on the 27th postoperative day claiming that she was suffering from secondary hemorrhage and lab tests confirmed anaemia with haemoglobin levels of 50 g/l. The patient reported intervals of bleeding lasting up to 30 minutes. The lady received two blood transfusions to treat the symptoms of anaemia, i.e. dyspnoea, malaise and fatigue. Although the patient was monitored by the nursing staff, a further episode of secondary hemorrhage occurred, which was initially kept secret by the patient. Later she admitted to have lost about 750 ml of blood. Another psychiatric consultation was scheduled. During this consultation the patient stated that she deliberately provoked the bleeding through manipulations in the nose. She also explained that she had a tendency towards self-harm. It was concluded that the patient had developed self-destructive behaviour as a result of abuse in childhood. Therapy was offered, however, the patient refused. The follow-up showed that the patient continued her blood-letting habit, not only events of self-induced epistaxis, but also GI hemorrhages were documented. Because of severe anemia and poor access to peripheral veins it was necessary to implant a port device. Via the port the patient then received regular blood transfusions. She still claims that previous psychotherapeutic treatment had deteriorated her condition. She could be convinced again to a psychotherapeutic approach on an outpatient basis and she is planning to have inpatient psychiatric treatment.

Case No. 3

A patient presented herself with rhinitis, posterior rhinorrhoea and an impetiginous inflammation of the paranasal skin and the philtrum of the upper lip (Figure 5). The lady stated that nasal crusting and discharge of nasal mucus was very discomforting for her, she was wiping her nose in 5-15 minutes intervals. She also felt the urge to apply nasal cream every 30 minutes to her nasal mucous membranes to prevent crusting. The profound parts of the nose were cleaned 5 times daily by rinsing the nose with normal saline solution. When asked about the onset of her complaints she stated that the problems had started after she had received a septoplasty and turbinate reduction for treatment of nasal obstruction. However, over the last 4-8 years, she had also been frequently treating her nose with inhalations, red light applications and nasal ointments for a variety of nasal symptoms. Within the last year she



Figure 5. Inflammation of the paranasal skin in patient 3. The impetiginous inflammation was due to obsessive manipulations, which the patient performed to clean her nose. She was constantly wiping her nose with handkerchiefs. Intermittent occlusion of the nose with nasal bandages led to a complete recovery of the skin.

had received three cycles of intravenous antibiotic therapy, which led to an improvement of the impetiginous inflammation of the paranasal skin. She also had a past medical history of psychotherapy for the treatment of her disposition to depression. Therapy had ended approximately 6 months prior to initial presentation in our department. The medical history also revealed recurrent infections of the upper respiratory tract and recurrent whitlow.

Comprehensive tests for allergy showed an unspecific sensitivity of the skin, but no signs of allergies against preservatives, ingredients of ointments or atopy. Wegener's disease was excluded by negative serology and through nasal biopsy, which did not show signs of vasculitis. Immunodeficiency was also ruled out, only an unspecific elevation of IgA levels was found, which could be explained by the chronic inflammations of the nasal mucosa. Repeated swabbing of the paranasal skin and the endonasal mucous membranes was positive for *Staphylococcus aureus*. Therapy was initiated, which consisted of intravenous antibiotic therapy, application of nasal cream, which contained Muciprocin, and temporary occlusion of the nose with bandages. Objective findings showed an immediate response and the patient's complaints were reduced. In view of the unusual constellation of complaints, a psychosomatic consultation was arranged. The consulting doctor found a tendency towards self-destructive behaviour in the patient, but could not verify the diagnosis, because the patient blocked all questions drifting to this direction. Further psychosomatic/psychiatric support was offered, however, the patient refused all these offers, claiming that she was already in therapy at a different institution on an outpatient basis.

Case No. 4

The fourth case describes again a female patient who was initially presented in 2004 with recurrent epistaxis. The repeated nosebleeds had led to significant anaemia and on physical examination the typical signs of hereditary hemorrhagic telangiectasia (HHT) were found. The patient had had epistaxis for

more than 30 years and reported that numerous procedures had been performed to control the bleedings. As a result from the numerous operations the patient had suffered a large septal perforation and she had lost sight of her right eye.

Inside the nose, large webs of telangiectatic vessels were evident which did not seem treatable by laser therapy. Instead the telangiectasies were removed with a curette and skin grafts were placed on the denuded areas. Skin grafts healed in well and epistaxis was significantly reduced to occasional episodes of minor bleeding. Three months later the patient was treated by Nd:YAG laser therapy for residual telangiectasies. The follow-up showed a good response of telangiectasies to treatment, however, the patient reported repeated episodes of strong and prolonged bleeding. Although these reports were not surprising, considering the underlying disease, there was a discrepancy between objective endonasal findings and subjective complaints. On the other hand, the patient seemed to be authentic and severe anemia seemed to prove her statements. During several conversations, the patient opened up and spoke about her fear of some day suffering such severe bleedings that she might die from exsanguination. She also spoke about her social isolation through her recurrent nosebleeds and the strain, which the disease put on her family. Several therapeutic conversations followed and the patient was referred to the Department of Psychosomatic Medicine. The lady spent one month as an inpatient in this Department, finally resulting in the diagnosis of self-destructive behaviour. The patient admitted that during phases of tension and mental stress she was deliberately inducing episodes of epistaxis. According to the opinion of our colleagues from the Department of Psychosomatic Medicine, the underlying disorder was an autonomy and dependency conflict. This conflict was discussed and clarified during psychotherapy. The further development gave evidence of the efficiency of the combined treatment. Following psychotherapy, the patient only returned once for an inpatient treatment of recurrent epistaxis.

DISCUSSION

In psychiatric disorders, self-destructive behaviour is an unspecific symptom⁽⁶⁾, which occurs in 4% of the population⁽⁷⁻⁹⁾. An increase of suicidal tendencies has been reported in context with the respective psychic disturbances⁽¹⁰⁻¹³⁾. A correlation was found between the number of self-destructive events and an increased number of attempted suicides in adult borderline syndrome patients^(6,13).

Difficult to diagnose are those cases of factitious disorder, with (A) intentional production or feigning of physical or psychological signs or symptoms, when (B) the motivation for behaviour is to assume the role of an ill person and (C) if external incentives for the behaviour (such as economic advantages, the avoidance of legal problems, or the improvement of physical well-being, as in malingering) are absent (Diagnostic criteria of

DSM IV). Many patients themselves are health care workers. The behaviour is typically performed in a secret manner and is not admitted, even when contradictory evidence is overwhelming. On the one hand such behaviour must be considered as a voluntary and deliberate act, on the other hand it is uncontrolled by the patient and is often performed in a restricted or dissociated state of mind, so that the patient cannot perceive the intentional character of this behaviour. When the respective person is confronted with the suspect diagnosis of factitious disorder – even in a non-accusational manner – the majority of patients decides to stop the treatment; in some instances patients even can develop open psychosis.

Pathogenetically self-destructive behaviour is initiated by events in childhood. Frequently physical or psychologic neglect as well as sexual abuse or domestic violence is reported⁽¹³⁻¹⁶⁾. Other factors like intellectual and cognitive deficiencies as they occur in autistic disorders have been described as contributing factors but they do not apply to every single case. Similar statements are true for the association of self-destructive behaviour and the borderline syndrome. Borderline patients are characterised by impulsiveness, dichotomous ways of thinking (black-white thinking), cognitive impairments, despair, difficulties in finding solutions to problems and a diminished capacity of autobiographic reminiscences⁽¹⁷⁾. Multiple events of self-harm are correlated with previous and ongoing psychotherapies, drug and alcohol abuse, antisocial behaviour, low social rank, interpersonal deficits, unemployment, and a low range of cooperation with psychotherapists⁽¹⁷⁾. Neuroendocrine dysfunctions have also been postulated to trigger self-destructive behaviour^(6,10). Low levels of serotonin and dysfunctions in the dopamine D1 system have been documented, but these parameters cannot be regarded as specific⁽¹⁸⁻²⁰⁾. Therapy of patients with self-destructive behaviour is difficult, not only because of the large variety of underlying disorders⁽²¹⁾. Several views of psychiatric therapeutic approaches are currently employed to treat these patients⁽²¹⁾, one form is the analytical approach on the basis of the triggering event; another way is the dialectic behavioural therapy, which is also used in therapy of the borderline syndrome. This type of therapy tries to “accept the patient as he/she is”. Concurrently one attempts to lead the patient in changing his/her behaviour⁽²²⁻²⁴⁾. It has been proven to be beneficial to visit the patient in his/her domestic surroundings, which improves the therapeutic possibilities because it reduces patients' non-compliance⁽¹⁷⁾. With regard to prognosis evidence has been provided that approximately 15% of the patients have a relapse within the first year and harm themselves again. In 0.5%-2.4% the disorder progresses ending in suicide within one year after the first manifestation of a self-inflicted injury.

Concerning nasal manifestations of self-destructive behaviour reports in literature can be found about rhinotexillomania (obsessive nose picking). In rhinotexillomania the manipulation may even lead to self-inflicted destruction of the ethmoid

(25-27). Furthermore there are single reports about manipulations that lead to ulcerations, necrosis of tissue and crusting as well as about impaction of foreign bodies (28-31). It is unclear whether self-inflicted body modifications like piercing and tattooing also have to be classified as a benign form of self-destructive behaviour (9, 32-33).

Self-destructive behaviour is a joint symptom of a variety of different psychic and psychiatric disorders. In the field of psychiatric disorders, self-destructive behaviour is a common but unspecific symptom, commonly embedded in complex psychiatric disturbances, which have occurred during childhood and teen-age (17). Similar to our findings it has also been shown in other studies that self-mutilation is most commonly practiced by female patients (38). It has been assumed that self-destructive behaviour is based on unconscious mental conflicts and worries during development of female identity (39). Self-mutilation is performed to reduce tension, which has been built up during episodes of conflict and guilt. Many patients are so troubled with fear that this fear can turn into aggression. If the aggression cannot be aimed at another person it can be directed against oneself (38). One other important factor in pathogenesis of self-destructive behaviour is the feeling of depersonalisation, which may increase to a state of complete disintegration. Affected women become aware of these feelings and the manipulations are performed to act against the process of progressive disintegration. The experience of pain, the sight of blood and the created wound are proof of the own physical existence and it helps the patients to regain a feeling for their bodies. This process has been identified to be the driving factor in patients who perform wrist slashing and cutting (38) and it is almost certain that it may also cause other manifestations of self-harm. Affected women state that the manipulations are often performed to function as signals, if psychic conflict cannot be voiced otherwise. The above-mentioned remarks show that treatment concepts for patients with factitious disorders in the area of the nose should be made in cooperation of multiple disciplines. The role of the ENT surgeon is to realize the underlying disorder and to avoid unnecessary operations and manipulations. This will often lead to incooperative patients, a behaviour that can frequently be observed, if the patients do not receive their medically sanctioned injury. However, to fulfil the patient's wish would not only be unethical but would also become an obstacle for immediate psychiatric therapy. Patients with self-destructive behaviour should always receive long-term psychotherapy.

It is very difficult to intervene during the actual crisis. At the climax of crisis the act of self-injury is performed and tension turns into a feeling of awakening and well-being. Within a short time these feelings are reversed and tension begins to build up again. In the moment of crisis the ENT surgeon should first of all act symptomatically, i.e. hemorrhages should be stopped and foreign bodies should be removed. Obvious

discrepancies between medical history and objective findings should rouse our awareness towards factitious disorders and self-destructive behaviour. Immediate psychiatric consultation should be called for, especially if it is considered that self-destructive behaviour can turn into suicide. The presented cases include one case where the patient repeatedly manipulated inside her nose to induce epistaxis. The repeated manipulation led to significant exsanguinations with haemoglobin levels of 50 g/l. This may give an impression to which extremes patients may take their actions. Our experiences show that it may be very difficult to convince the patients to seek psychiatric help. However, apart from symptomatic treatment this is the key issue in the management of patients with rhinologic manifestations of self-destructive behaviour.

CONCLUSION

Discrepancies between medical history and objective signs as well as physical signs of self-manipulations on other parts of the body, e.g. slashes on the wrist or the forearms, should raise suspicion about factitious disorders also with regard to the nose. Examples of suspicious findings are repetitive insertions of foreign bodies, recurrent epistaxis that is not congruent to local findings and perforations of the nasal septum that cannot be explained by past medical history or systemic disease. Recurrent endo- and extranasal infections that remain somewhat mysterious even after thorough diagnostics should also lead to the differential diagnosis of factitious disorders. Additionally it has to be emphasised out that patients try to receive investigations and therapies through symptoms that have been induced through self-manipulation. Sometimes patients even try to undergo drastic therapies that may lead to permanent defects. This kind of behaviour has been typical in artificial disorders. If any of these types of diseases are suspected it is of paramount importance to consult professionals for psychic or psychosomatic disorders. A combined somatic, psychosomatic and psychiatric treatment is necessary until the patient is ready to start an inpatient treatment.

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Benedikt J. Folz
 Dept. of Otorhinolaryngology
 Karl-Hansen Medical Center
 Antoniusstr. 19
 33175 Bad Lippspringe
 Germany

E-mail: b.j.folz@medizinisches-zentrum.de