

Case Report

Deliberate Self Harm and the Surgeon: Report of two cases

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ABSTRACT

Deliberate Self Harm (DSH), formerly known as parasuicide, is commonly diagnosed in hospital emergency rooms, typically presenting with self poisoning and less often with self induced lacerations

mostly of the wrists and forearms. We report two cases of atypical presentation that posed a diagnostic challenge for the surgeons in our hospital and discuss the epidemiology, psychopathology and treatment options.

KEYWORDS: DSH, suicide risk, self-mutilation

INTRODUCTION

Deliberate Self Harm (DSH) is a psychosomatic entity that peaks in adolescence in the case of females and young adult life in males^[1]. The somatisation of an unbearable psychotic state often draws attention only when the patient is recognized as behaving in a suicidal or parasuicidal fashion. More than 90% of DSH occurs as self-poisoning, generally with medication, whereas 5-10% manifests with self-mutilation ranging from serious limb damage leading to risk of amputation to the repetitive head banging or finger biting associated with autism, Lesch-Nyhan, Prader-Willi and Tourette's syndromes as well as acute psychosis^[2, 3].

Co-morbid diagnoses are frequent in DSH patients, commonly in the form of behavioral or personality disorders in addition to depression, dissociative disorders, organic mental disease and eating disorders. Anxiety plays a major role in the psychopathology of DSH patients^[3,4]. Substance abuse, especially alcohol, is present in up to 50% of patients in western society^[1]. Common precipitating factors for DSH are harsh, authoritarian parenting or parental neglect, problems at school or work and unhappy personal relationships as well as social isolation. Childhood sexual abuse is often an important factor as is marital violence and a family history of impulsive DSH^[3-5].

The commonest method of non-poisoning DSH is laceration of the wrists, accounting for 80% of self injuries seen at a general hospital. These are readily diagnosed as instances of DSH and appropriately managed. The general surgeon is occasionally confronted with an atypical presentation of DSH, the patient presenting with a seemingly straightforward surgical condition such as a skin laceration

or soft tissue infection. The clinical pattern then typically follows an unusual or even bizarre path eventually leading to the suspicion of a self induced, often repetitive, injury in a psychiatrically disturbed patient. These patients present a real clinical challenge to the surgeon who is unable to explain the nature of the pathology and typically its resistance to conventional therapy. We present two cases seen at our institution over the past twelve months.

CASE REPORTS**Case 1**

A 23-year-old single woman first presented with the clinical picture of a localized tender area of cellulitis on the dorsum of the left foot. Her temperature was normal and she gave no history of diabetes. There was redness of the skin and induration. Pedal pulses were palpable and there was no clear evidence of any local injury. An X-ray of the foot was negative for any pathology or foreign body. All routine hematological and biochemical investigations were normal. She was admitted to the ward and started on intravenous antibiotic (piperacillin / tazobactam 4.5 grams iv 8 hourly). The next day there was a suspicion of an abscess developing in the first webspace, central to the area of cellulitis. Incision and drainage was performed under a general anesthetic. No pus was found but there was a localized area of superficial thrombophlebitis which was evacuated. A swab taken for culture produced no growth after 48 hours. A blood coagulation profile was normal. She denied history of trauma or possible insect bite. After four days of hospital treatment the foot was clinically back to normal with the patient fully

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ambulant. She was discharged on a further three day course of oral amoxicycillin / clavulanic acid.

Review of her hospital notes and previous medical history revealed that she was treated a year ago for hysterical hemiparalysis and anesthesia affecting the right side of her body. She eventually recovered following psychiatric counseling. On their advice she was not on any psychotropic medication.

Five days later, the patient was seen in the Casualty Department complaining of severe pain with marked redness and localized swelling of the dorsum of the same foot. The previous incision was clean and not infected. She insisted on having taken the prescribed antibiotics and denied any trauma to the foot. She was admitted to the ward and started on treatment with diclofenac 50 mg twice daily and a large cotton wool and crepe bandage applied to cover all of the foot so that the patient did not have any access to it. On inspection twenty four and thirty six hours later, a remarkable clinical improvement was noted. However, once the big dressing was replaced with a small one signs of recurrent cellulitis appeared. The redness and swelling promptly disappeared on the application of a large padded dressing that prevented the patient from having access to the wound.

An interview with her father revealed that she had been observed repeatedly rubbing the dorsum of the foot prior to hospitalization and on one occasion had enlisted a younger brother to stomp repeatedly on the dorsum of the affected foot. It was thought that repeated trauma of this nature led to localized edema and thrombophlebitis.

A diagnosis of DSH was made and in consultation with a psychiatrist the patient was discharged on thioridazine hydrochloride and instructed not to touch the affected foot herself and attend hospital daily for dry dressing changes. On review a week later, the foot had completely healed and the patient has not attended our clinic, since then.

Case 2

A 21-year-old male, presented with a four day history of a painful discolored right fifth toe. On examination a deep narrow and clinically infected ulcer was evident around the base of the toe with dusky discoloration of the distal toe consistent with an ischemic injury. All pedal pulses were present. There was no clinical evidence of any embolic phenomena and no cardiac abnormality was detected. The patient denied any ligature or tight garment having been present or any traumatic injury. An X-ray of the foot was normal as were all routine hematological and biochemical investigations. The patient was not a diabetic or a smoker. Duplex Doppler studies of the lower limb revealed no

vascular pathology

He was admitted to the surgical ward and started on intravenous amoxicycillin / clavulanic acid 1g 8 hourly, pentoxifylline 400 mg 8 hourly and twice daily povidone iodine dressings to the toe. Over the course of the next few days the infection cleared but the clinical signs of ischemia persisted. The patient gradually improved and was discharged after seven days on pentoxifylline. A fortnight later he was seen in the Casualty Department with localized edema of the right foot. On the lower leg there were signs of a red circumferential line of a constricting agent, probably a tight band or ligature. The patient stridently denied the application of any ligature to the area.

He was observed overnight and by the next morning the swelling had totally cleared without any medical treatment. Assessment by a psychiatrist did not reveal any overt psychiatric abnormality other than an obvious case of the DSH syndrome, the patient throughout being in denial. The father of the young man later provided information that, some years earlier, the patient had developed temporary deafness, diagnosed as being of hysterical (conversion) nature, which responded to psychiatric treatment abroad.

The patient was discharged but failed to attend Surgical OPD and was lost to follow up.

DISCUSSION

DSH can be associated with the somatoform disorders, specifically conversion disorders as specified in the DSM IV classification of the American Psychiatric Association which includes hysterical blindness, paralysis, seizures or numbness that cannot be accounted for by a diagnostic neurological or medical disorder^{4,5}. Both our cases meet these criteria, Case 1 with transient hemiparalysis and Case 2 with transient deafness. Case 2's total indifference to the obvious markings of the ligature being pointed out to him is another feature of the conversion disorder (belle indifference of hysteria).

By the nature of their self inflicted injuries - ischemic toe followed by lower leg edema mimicking possible deep venous thrombosis in Case 2 and repetitive foot 'infections' in Case 1 - these patients will often be referred by the Emergency Department doctor for general surgical management. Due to the typical 'minor' nature of the lesion, the patient will be seen by a junior surgeon who will deal with the obvious pathology. The true nature of the problem only becomes obvious when the patient fails to respond to the standard treatment or presents in a dramatic fashion with a new manifestation, e.g., the ligature

induced edema in Case 2. In the instance of the unexplained ischemic toe, the differential diagnosis was between the rare condition of ainhum and auto-amputation of the fifth toe due to the development of a fibrous band at the base of the toe or a case of deliberate self harm by use of a ligature. In ainhum, a deep groove typically develops on the medial aspect of the base of the fifth toe and does not ulcerate but leads to progressive ischemia and eventual auto-amputation⁶. Here the circumferential nature of the ulcer as well as the acute onset was also against the pattern of ainhum.

Often, it is only through careful review of the patient's old medical notes, as in Case 1, that a pattern emerges suggesting the DSH syndrome. When childhood abuse, sexual or other parental behavior are involved, it is often difficult to link the clinical cause of the injury to DSH as these conditions are usually denied for obvious reasons.

DSH is sometimes difficult to differentiate from factitious disorder where the patient intentionally self induces infections, chronic wounds or simulates specific illnesses, the symptoms and signs being attributed to a need to assume the sick role. Most of these patients are female with some medical background and associated psychiatric conditions such as conversion disorders are rare. Typically, these patients become very angry when confronted with the diagnosis, discharging themselves from hospital. Suicidal intent is not present⁷. Obviously there is some overlap between the conditions of DSH and factitious disorder, the important point for the treating doctor being to accurately assess the suicide risk.

Whenever the surgeon suspects DSH a careful history must be taken and old clinical notes from previous admissions and outpatient attendances thoroughly scrutinized. The surgeon must deal with the physical pathology as dictated by its severity and preferably admit the patient for observation. A psychiatric consultation is sought in all cases. The wound should be kept covered at all times, care being taken to deny the patient access to the area. Specific treatment of the underlying psychiatric condition depends on the perceived risk of attempted suicide. There is a history of previous DSH in a third to half of completed suicides. Differently put, among patients who have been

involved in DSH, the suicide rate in the following 12 months is 100 times greater than in the general population. The majority of DSH patients, including the two cases outlined are however, not perceived as suicidal and these are typically misdiagnosed⁸.

DSH patients evaluated as low risk for suicide receive dialectical behavior therapy which reduces DSH in borderline personalities, cognitive behavior therapy and family therapy as well as antidepressants such as selective serotonin reuptake inhibitors (SSRI) which reduces suicide rates even in the absence of clinical depression⁹. Cases at high risk for suicide are those who have active suicidal intent, the impulsive and agitated, the psychotic and those individuals without adequate home or family support. The risk is the highest amongst older male patients, depressed or alcoholics¹¹. These high risk cases are admitted under psychiatric care and carefully followed up as outpatients. Confidentiality is assured in the case of minors but parents are notified if suicidal acting out is deemed likely. Upto 75% will improve regarding both psychotic and social aspects but 13 - 35% will repeat the DSH behavior within two years¹³. A previous generation of doctors were raised on the dictum 'if it's bizarre do a W R (Wasserman Reaction for syphilis)' Perhaps in to-day's clinical setting we should change that to 'if it's a bind, think of the mind...'

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