

Self - Injurious Behaviors: Assessment and Management

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Educational Objectives :

- 1) Distinguish self-injurious behaviors from suicidal behaviors.
- 2) Compare and contrast types of self-injurious behaviors and their underlying psychiatric diagnoses.
- 3) Describe management and treatment of self-injurious behaviors in the correctional setting.



Definitions and Distinctions :

- ◆ Self injurious behavior (SIB) – intentional self-directed injury inflicted **without** conscious intent to kill oneself
- ◆ “A basic understanding is that a person who truly attempts suicide seeks to end all feelings whereas a person who self-mutilates seeks to feel better”
- ◆ SIB may be a “preferable alternative” to suicide termed the “anti-suicide” model
- ◆ Although SIB may not be suicidal in intent, it can rarely lead to “accidental” suicide
- ◆ Impulsivity – a dimension of personality defined as the failure to resist an impulse, drive, or temptation that is harmful to oneself or others
- ◆ SIB has other names – most current: Nonsuicidal Self-Injury (NSSI)

Nonsuicidal Self Injury (NSSI) in DSM 5: Proposed Criteria under Conditions for Further Study

Intentional self inflicted damage to body w/o suicidal intent
for 5 or more days within past year

Person injures self for at least one of these reasons:

- seek relief from negative thoughts/feelings
- resolve interpersonal conflict
- bring about positive feelings

Before the behavior, person experiences one of the following:

- interpersonal difficulty or negative feelings
- **preoccupation about self injury which is hard to resist**
- frequent urges to self injure

Behavior not accepted by society

Person is significantly distressed by the behavior

Behavior cannot be explained by another mental/medical condition

Statistics on SIB/NSSI and Suicidal Behavior

- ◆ 4% of adults engage in self injury, much higher in adolescents
- ◆ <1% of adults make suicide attempts
- ◆ 69\$ billion was cost to US for both self harm and suicide in 2015
- ◆ Suicide rates have increased 34% between 1999 and 2020 (10.5 to 14.4 suicides per 100,000)
- ◆ Suicide is 12th leading cause of death in US

SIB vs Suicide Statistics in one prison system:

- ◆ 360% increase in self harm incidents while rates of completed suicides remained relatively flat during a 5 year period (2015-2019) in AZ DOC
- ◆ 230 self harm incidents as opposed to 12 suicide attempts during the one month (10/2019) in the AZ DOC

Further support for distinct nature of SIB:

Diagnosis (n=548)	SIB	Suicide Attempts
Major Depression	14%	56%
Alcohol abuse	16%	26%
Adjustment disorder	24%	6%
Borderline PDO	9%	9%
Histrionic PDO	22%	4%
Schizoid PDO	2%	9%

Nonfatal Self Harm may portend Suicide

- Long term follow up of 34,219 admissions for self-harm found that **3.5%** completed suicide within 9 years
- Another review found a similar **4%** risk within 5 years of self-harm
- However, highest risk was most closely associated with **diagnosis** of severe mental illness (especially bipolar disorder)
- Higher risk of eventual suicide also linked to self-injury method (hanging was most predictive)

Evaluation of Self – Injurious Behaviors :

- ◆ Presence of suicidal ideation
- ◆ History of prior SIB
- ◆ Frequency of SIB
- ◆ Medical complications / interventions (lethality)
- ◆ Age of onset / longest period free of SIB
- ◆ Family history of SIB

Evaluation of Self – Injurious Behaviors :

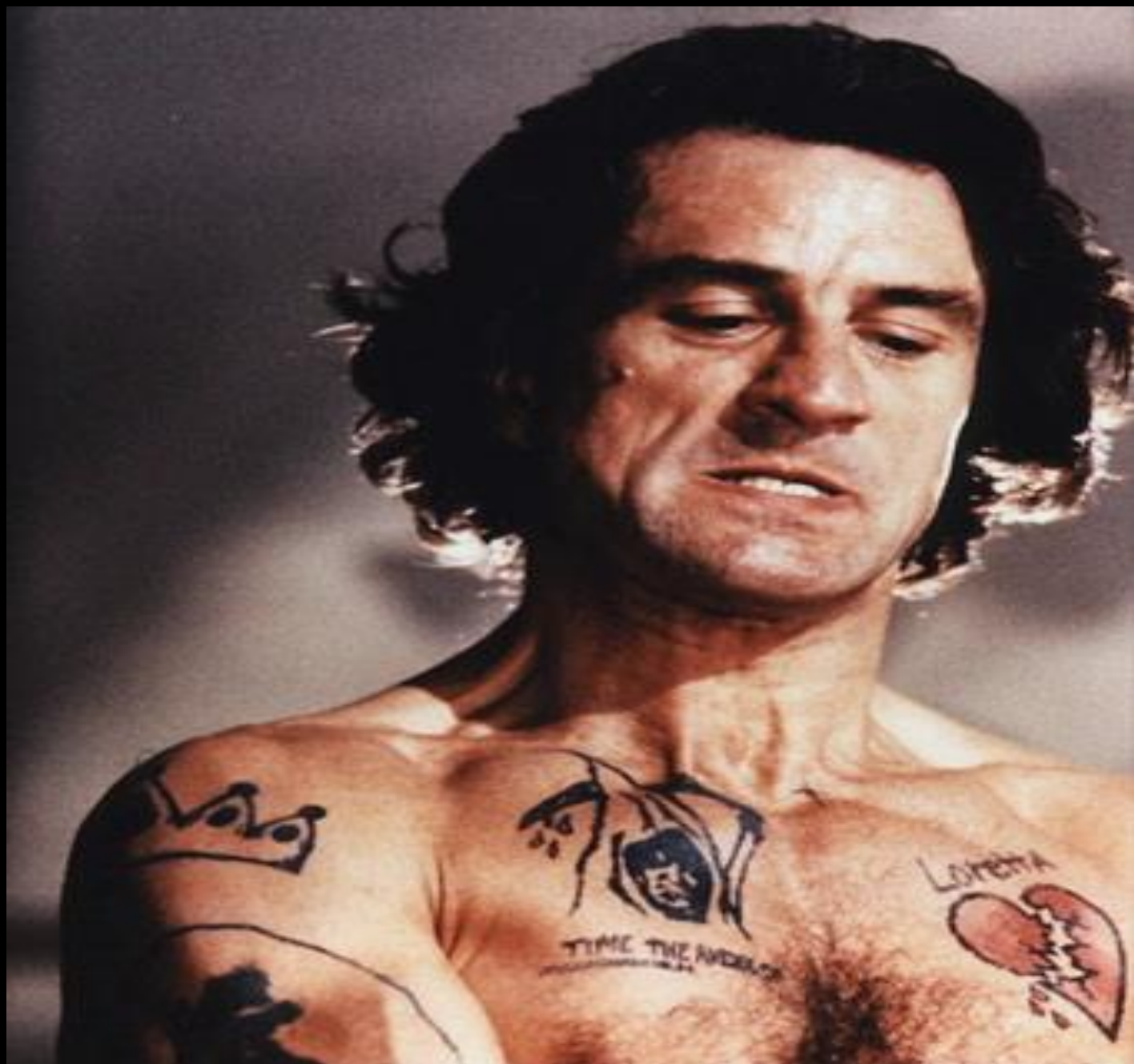
- ◆ Use of substances prior to or during SIB
- ◆ Presence or absence of analgesia
- ◆ Identifying **underlying psychiatric** disorders
- ◆ Psychotherapeutic treatment history
- ◆ Pharmacologic treatment history

Evaluation of Self – Injurious Behaviors :

- ♦ Motivations / emotions (internal)
- ♦ Stressors / triggers in corrections (external)
- ♦ Aftermath (affective / interpersonal) of SIB
- ♦ Dystonicity / resistance / control
- ♦ Preexisting urge / impulsivity
- ♦ Classification of SIB

Classification of SIB

- ◆ Stereotyped / automatic
- ◆ Major / psychotic
- ◆ Compulsive
- ◆ Impulsive
- ◆ Other / mixed
- ◆ Culturally sanctioned





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Stereotypic SIB

- Behaviors: head banging, self hitting, self biting, skin picking
- Pattern: highly repetitive, monotonous, fixed, often rhythmic, driven, contentless (devoid of meaning / affect), occur in private more than other SIB's
- Damage: mild to severe (even life threatening)
- Disorders: intellectual disability, autism, congenital syndromes
- Prevalence: 3% - 46% in patients with intellectual disability

Treatment of Stereotypic SIB in Developmental Disorders

- ◆ Studies suggest that serotonin and dopamine play roles in mediation of SIB in intellectual disability/autism
- ◆ SSRI's , antipsychotics (atypicals), Lithium, Valproic acid, Beta-Blockers, and others have been utilized with mixed results
- ◆ 2 DBPC studies with Risperidone in autism with (+) results
- ◆ Small studies (+) with Olanzapine and Ziprasidone
- ◆ Behavioral interventions and in severe cases restraints may need to be employed

Major SIB

Behaviors:	castration, enucleation, limb amputation
Pattern:	isolated, impulsive or planned, typically involves concrete symbolism
Damage:	severe or life threatening
Disorders:	schizophrenia, psychoses, substance induced, severe personality disorders, transexualism
Prevalence:	rare, majority involve patients with psychosis

Features of Major SIB :

- ◆ Several medical studies have found decreased sensitivity to pain in patients with schizophrenia (e.g. 37% vs 95% in appendicitis)
- ◆ Many patients report minimal pain associated with act despite severe tissue damage
- ◆ Majority of these cases involve males
- ◆ Psychosis involved in over 80% of genital mutilations and eye enucleations
 - delusions with themes of sin / guilt / sex / religion
study found 50% quoted bible (Matthew 5:29) after enucleation
 - command auditory hallucinations
- ◆ Treatment : includes medical stabilization and usually antipsychotic agents

Compulsive SIB

Behaviors:	often represents exaggerated grooming (e.g. hair pulling, skin picking, nail biting) ?? foreign body ingestions / insertions
Pattern:	repetitive, ritualized, symbolic
Damage:	mild to moderate
Disorders:	eating disorders , trichotillomania, body dysmorphic disorder, Tourette's syndrome, Polyembolokoilomania (paraphilia)
Prevalence:	eating disorders are common trichotillomania affects 1-2 % rarely seen in obsessive compulsive disorder, 13% - 53% of patients with Tourette's



Treatments for Compulsive SIB :

- ◆ Atypical antipsychotics and SSRI's for Tourette's
- ◆ SSRI's have had questionable efficacy in trichotillomania (40% response in citalopram study)
- ◆ Cognitive-Behavioral interventions may be superior to SSRI's (in 2 studies : CBT > SSRI's)
- ◆ Better responses with SSRI's in eating disorders and body dysmorphia
- ◆ Consider combination approach

Impulsive SIB

Behaviors:	skin cutting, burning, non-lethal overdoses, self hitting
Pattern:	isolated or habitual, often symbolic, impulsive
Damage:	mild to moderate
Disorders:	borderline (BPD), antisocial (ASPD), post traumatic stress disorder, others
Prevalence:	most common form of all SIB, approximately 75% of patients with BPD



Multidimensional Causes of Impulsive SIB :

- ◆ Biological contributions
 - neurochemical (serotonin, GABA, opioid, dopamine, etc)
 - and structural (amygdala / frontal lobe)
- ◆ Psychological contributions
 - “coping mechanism” to avoid suicide
 - serve as self punishment / other dynamic theories
 - regulate negative affects (psychic pain turned outward)
- ◆ Social Contributions
 - secondary gains / garners attention and empathy
 - dysfunctional family and support systems
 - poor communication skills

Role of Serotonin :

- ◆ Substantial evidence **inversely correlates** peripheral and central markers of **5HT function with impulsive**, aggressive, and **suicidal behaviors**
- ◆ Diminished 5HT activity (↓ CSF 5-HIAA) associated with impaired impulse control in variety of conditons (depression, bulimia, cluster B, alcoholism, MR,etc)
- ◆ Fenfluramine induced prolactin and cortisol changes blunted in personality disordered patients with SIB
- ◆ Neuroimaging studies (PET) have reported decreased 5HT function in areas of prefrontal cortex in impulsive individuals

Role of Endogenous Opioids :

- ◆ Conditions in which pain insensitivity accompany SIB include schizophrenia, BPD, and dementia
- ◆ Intrinsic pain inhibitory system activated in presence or anticipation of pain – ↑ beta endorphins
- ◆ ↑ Beta endorphins via “stress induced analgesia” (e.g. wounded soldiers / athletes) may play role
 - psychic numbing
 - escalation of severity (tolerance / addiction)
- ◆ Cutaneous SIB resembles acupuncture (?) which may provide potent analgesia via opioid mediation

Psychodynamic Formulations for Impulsive SIB :

- ♦ Promote **affect regulation**
- ♦ **Reduce anxiety** / generate euphoria
- ♦ Discharge sexual arousal
- ♦ Terminate dissociative experiences
- ♦ Serve as **self - punishment**
- ♦ Support dysfunctional relationships
- ♦ Serve as nonlethal alternative to suicide

Psychotherapeutic Approaches to Impulsive SIB :

- ◆ Psychodynamic psychotherapy
 - most common form of therapy utilized overall
 - attempts to gain insight into causes of behavior
 - teaches healthier ways of coping with negative internal states
- ◆ Dialectical behavior therapy
 - most often employed with impulsive SIB in BPDO
 - combines cognitive, behavioral, and supportive interventions
 - in large study, DBT reduced frequency of self-mutilation to 1.5 acts per year compared with 9 acts per year in controls

Medications utilized in treatment of impulsivity and SIB associated with Borderline Personality :

- ♦ SSRI's
 - Fluoxetine most studied with 2 DBPC (n=62)
 - others show some benefit in OL/CR
- ♦ Antipsychotics – 8 small DBPC with atypicals
- ♦ Mood Stabilizers
 - Divalproex with 1 DBPC + study
 - Lithium and Carbamazepine with OL/CR
- ♦ Opioid Antagonists / Others
 - Naltrexone has OL/CR with mixed results

DBPC = double blinded / placebo controlled

OL/CR = open label / case reports

Self injury in the Inmate Population :

- ◆ 5% incidence in early study (Toch, 1985)
- ◆ Usually mild to moderate injuries including slashing, head banging, self - hitting, non-lethal overdoses, foreign body insertions, etc.
- ◆ In some cases, motives (relief of anxiety/tension) are consistent with impulsive or compulsive SIB
- ◆ Most (> 90%) strongly associated with ASPD and other severe PDO's (Virkkunen, 1992)
- ◆ Rarely associated with psychosis (10%) (Fulwiler, 1997)

Unique Features of Inmate SIB :

- ◆ In 31% conscious manipulation was leading motive (Fulwiler, 1997) – deliberate,calculated acts
- ◆ Unusual forms of SIB such as hunger strikes and foreign body ingestions (Stojkovic,2005)
- ◆ Low environmental stimulation in prison may precipitate SIB in sensation-seeking antisocial individuals (Virkkunen, 1992)
- ◆ Contagion of SIB reported in prisons (Rada,1982)
- ◆ ? **Terrorism** – use or threatened use of force or violence with an intent to coerce societies or governments by inducing fear in their populations (Pastor,2004)

Levels of SIB in Correctional Setting:

- I - Superficial / infrequent – adjustment reaction
- II - Moderate damage / frequency – personality d/o
- III - Severe injuries / relentless - ? DSM 5 diagnosis

Management of SIB in the Correctional Setting

- ◆ Medical interventions / stabilization
- ◆ Determine presence of suicidality not only from subjective statements but from objective data
- ◆ Assess lethality / impulsivity / triggers
- ◆ Classify type and ascertain underlying diagnoses
- ◆ Treatment focused on underlying diagnoses
- ◆ Consultation with colleagues / **team approach**

Management of SIB in the Correctional Setting

- ◆ Calm / cautious reaction to these dramatic behaviors
- ◆ Avoid reinforcement of recurrent SIB with transfers and inpatient admissions
- ◆ Behavioral oriented therapies to reduce SIB
- ◆ Do not negotiate with “terrorists”
- ◆ Less emphasis on psychotropics unless clearly beneficial
- ◆ Encourage redirection of energy into more appropriate channels (e.g. requests and grievances)

Management of SIB in the Correctional Setting

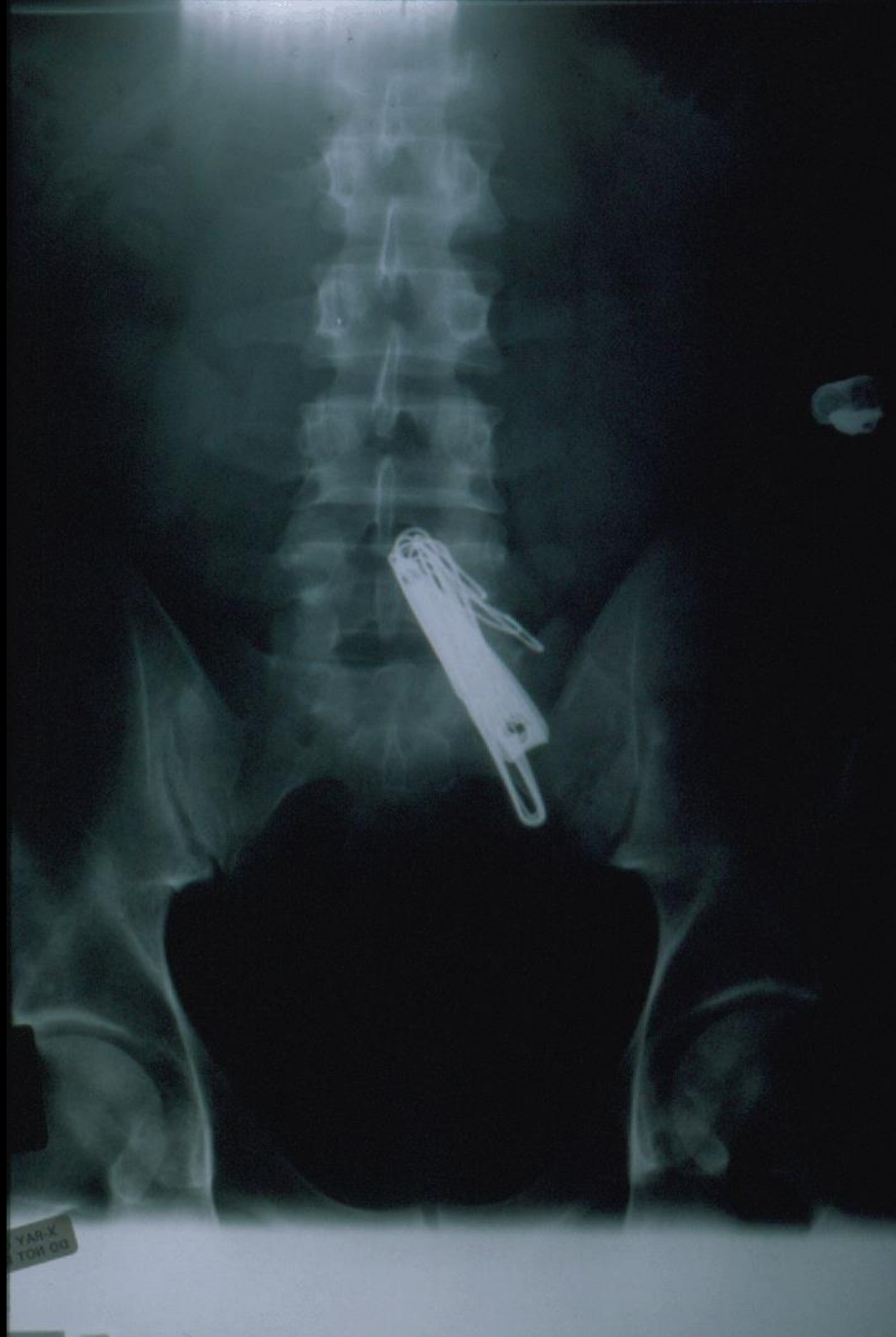
- ♦ Majority of self-injurers will briefly escalate but then cease and desist if behaviors not reinforced
- ♦ Minority will persist and require additional services
- ♦ Identify 6 month period of less SIB and attempts to recreate environment (housing, visits, activities, therapy, psych meds)
- ♦ Utilization of specialized housing units for refractory cases may reduce episodes
- ♦ Occupying their time with meetings, groups, and activities may be essential
- ♦ High utilizers/"terrorists" may require "drastic" measures

Management of Inmates on Hunger Strikes

- ◆ Response should follow the policies and procedures of the institution / DOC
- ◆ Medical assessment to obtain baseline weight, vital signs, labs, and complicating illnesses
- ◆ Mental health assessment for presence of delusions, suicidality, and mental status changes
- ◆ Typically housed in isolation setting to closely monitor food / fluid intake, weight, signs of dehydration and malnourishment

Management of Inmates on Hunger Strikes

- ♦ Majority of cases are voluntary / volitional for system manipulation with specific grievance or agenda. May rarely see contagion or “mass” strike.
- ♦ Rarely driven by serious mental illness but often find presence of character/personality pathology
- ♦ Effective management requires team effort by security, medical, mental health, and even legal
- ♦ Encourage inmate to eat by offering meals regularly and possibly oral nutritional supplements
- ♦ May require involuntary feedings (IV fluids / NG tubes)



Foreign Body Ingestions / Insertions :

- ◆ Relatively unique to the inmate population
- ◆ Manipulation predominant factor in these acts
 - rarely compulsive, impulsive, sexual, or even factitious components
- ◆ Mental health intervention
 - individual assessment and diagnosis
 - often very limited impact with treatment
 - obtain second opinion from colleague
 - avoid reinforcing these behaviors
- ◆ Medical intervention
 - usually requires only monitoring of passage (radiographic studies)
 - may need endoscopic retrieval or surgery (sometimes multiple)
- ◆ Team approach (mental health, medical, security)

Practical Interventions by Security Staff for Foreign Body Insertions/Ingestions:

- ◆ Physical barrier over pie-flap with restrictions highlighted
 - ◆ 2 person verification system regarding restrictions
 - ◆ Daily (at least) cell checks by security
 - ◆ Random / Frequent mattress swap outs
 - ◆ Reduce or eliminate use of inmate workers
 - ◆ Officers assigned to MH watch switched out every 2-4 hrs
 - ◆ Security enforcing DOC policy (windows uncovered, etc.)
 - ◆ Physical barrier to prevent passage of items between cells
 - ◆ Body scanner implementation if possible
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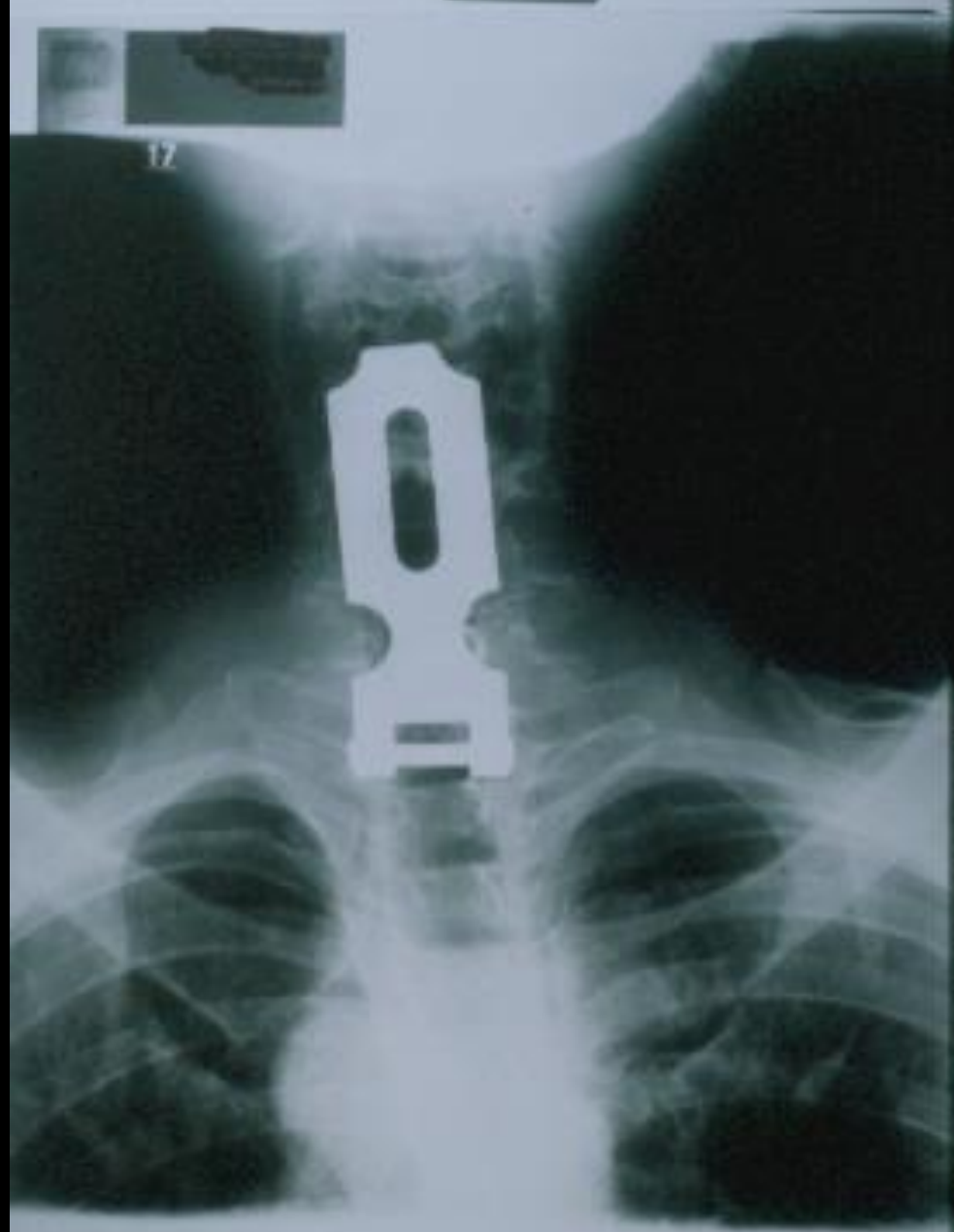




Summary and Concluding Remarks

- ◆ Etiology of SIB is multifaceted
 - ◆ SIB that is distinct from suicidality is exhibited by various individuals
 - ◆ Classification of SIB may assist in identification of any underlying psychiatric disorder
 - ◆ Treatment interventions should be multidisciplinary and most effective if aimed at the underlying diagnosis
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Questions and Discussion
