Intentional Ingestion and Insertion of Foreign Objects: A Forensic Perspective

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Intentional ingestion and insertion of foreign objects is a topic that has generated mounting interest among medical professionals over the past two decades. When featured in the literature, it has been typically discussed in medical subdisciplines, such as emergency medicine, surgery, gastroenterology, and urology. However, in-depth exploration of this multidimensional phenomenon in the field of psychiatry has thus far been limited. This article presents illustrative clinical vignettes from forensic practice of deliberate ingestion/insertion of objects and then examines specific aspects of this behavior that are critical to achieving a better understanding of it. The clinical, legal, and ethics-related implications surrounding this conduct are also explored. By taking a comprehensive approach, the aim is to foster a greater appreciation of this syndrome by clinicians and ultimately to arrive at improved practice guidelines surrounding these cases, including a more informed therapeutic plan and an enhanced management approach.

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The phenomenon of intentional insertion and ingestion of foreign objects into the body appears with some frequency in the medical literature, mostly in anecdotal reports of surgical and radiological practice. While psychiatric pathology has been hypothesized as the underlying etiology in some of these cases, the incidence of the behavior within psychiatric practice has not been established. A recent national survey[1] of American prisons revealed that approximately two percent of inmates per year engage in self-injurious behavior, including intentional insertion or ingestion of foreign objects, with at least daily occurrences in some systems and the highest rates occurring in maximum-security and lockdown units. However, detailed data on these events are not routinely collected for analysis. There are no current data regarding the incidence or prevalence of this phenomenon in the context of psychiatric inpatients or forensic psychiatry hospital institutions, although experience suggests that its occurrence is frequent enough to warrant future scientific investigation. For purposes of this discussion, several cases are presented, all of which were derived at a single point in time from among a population of 75 patients in maximum-security forensic units at one facility.

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Case Reports

These cases offer vignettes that are illustrative of the discussion that follows:

Case 1

This young adult had an extensive history of major depressive disorder, post-traumatic stress disorder, substance abuse, and borderline personality disorder. The course of illness was significant for self-injurious behavior and multiple psychiatric admissions for reported suicidal ideations. He underwent medical care and numerous surgical interventions, including removal by endoscopy of ingested foreign objects, such as pens, pencils, plastic knives, a toothbrush holder, paper clips, a broken CD, and pieces of plastic. The patient described the medical and surgical interventions as painful and subjectively distressing. Recurrent ingestion of foreign objects continued surreptitiously, despite constant close observation. Ingestion episodes were impulsive, without escalating behaviors or self awareness of mounting distress. The

patient described motives for ingestion that included anxiety evoked by ruminations about the past, guilt about a dispute with his mother, feelings of desperation, wishes to be removed from the world, and remote suicidal ideas. A diagnosis of factitious disorder was added to the patient's list of diagnoses, and the patient is currently being treated with citalopram, quetiapine, clonazepam, and behavioral therapy.

Case 2

This patient was a middle-aged adult with an extensive dual-diagnosis psychiatric history of psychotic illness and multiple substance use that had warranted numerous and extended hospitalizations, often precipitated by noncompliance with medication and relapse into substance use. He presented as overtly psychotic, with disorganized thoughts and behavior, paranoid delusions, and religious preoccupations. He also exhibited preoccupations revolving around themes of sexuality, mostly pertaining to evil sexual intentions. Self-abuse episodes involved insertion of metal wire in the genitals and lower abdominal area and psychotic beliefs that the metal wire had remained in his body after surgical removal. The patient was treated with risperidone, with full symptom remission of the psychosis, after which he no longer believed that foreign objects were present in his body.

Case 3

This young adult had a psychiatric history of multiple mental disorders, including post-traumatic stress, mood, psychotic, eating, and substance use disorders and cluster B and C personality disorders. The patient also carried diagnoses of mild mental retardation and several significant medical comorbidities, including HIV-positive status. His psychosocial history was significant for episodes of sexual abuse and assault. The patient reported having inserted several staples into his forearm years before hospitalization, which recurrently cause pain during periods of anxiety and a tendency to scratch and dig into the arm in an attempt to remove them. During hospitalization, there were multiple insertions of various objects into the genitals, including contraband. The patient was unable to explain the motive for the insertions.

Case 4

This adult had a psychiatric history of bipolar disorder and multiple drug use, which had warranted more than 30 hospitalizations since his early teenage years. Once detoxification from substances was achieved, the underlying psychotic state became readily apparent and was characterized by severe behavioral disorganization, thought disorder, hallucinatory experiences and responsive behavior, and paranoia. The patient's psychiatric symptoms were further characterized by chronic suicidality with multiple gestures of low lethality, unruly or unlawful behavior, and mood disturbances with profound depression or intense irritability. His medical history was also significant for HIV-positive status, and his psychosocial history was significant for sexual abuse and assault. The patient presented with gross thought and behavioral disorganization, aggressive behavior, extremely impaired activities of daily living and social skills, and very low tolerance of frustration. During hospitalization, the patient's pattern was to insert large amounts of foreign objects into the genitals. Motives for inserting the objects were unknown. The patient was referred for medical treatment and removal of the objects when it was noted by staff that the items were spontaneously falling out of the genitals, and an infection was suspected. The patient's acute psychosis responded to high doses of a combined regimen of two atypical antipsychotics.

Examination of Ingestion/Insertion Behavior

When examining the practice of deliberate ingestion and insertion of foreign objects, it is important to distinguish five aspects of this behavior: the body site through which the foreign object is introduced; the type of foreign object involved; the amount of foreign objects ingested/inserted; the motivation behind the behavior; and any identified psychiatric diagnoses. Being mindful of these five facets translates into a better understanding of the behavior and ensures efficient management of potential clinical consequences.

Body Location

By convention, ingestion of objects pertains to their introduction through the mouth. Insertion, on the other hand, refers to introduction of objects through body orifices (nose, ear, urethra, vagina, or rectum), the skin, or into the orbit, breast, abdomen, or pelvis.[2,3] An increasing number of cases of self-inflicted urethral foreign object insertion have been reported in the literature over the past decade.[4] This

specific type of behavior occurs more commonly in male patients,[3] at a ratio of 1.7:1.[5] However, the differential in gender predominance appears to vary according to the body site involved. For example, recent case studies of foreign object insertion via skin have been reported in female patients.[2,6]

Type of Object

A review of the scientific literature reveals that a very wide array of objects, with differing characteristics in shape and size, have been ingested/inserted in reported cases. In a retrospective hospital review of 262 cases of foreign object ingestion in adults, the most commonly ingested items were identified as toothbrushes, pens, pencils, spoons, batteries, razor blades, pieces of glass, and paper clips.[7] A similar study reported that batteries and sharp metal or glass objects were the most frequently ingested foreign objects.[8] In cases of foreign object insertion through the epithelium, the use of long, thin objects such as sewing needles and straightened paper clips was the most common.[2] In cases of urethral foreign object insertion, different types of wire and wire-like objects (cables, tubes, straws, or string) were most frequently used.[9] In cases wherein illicit substances were being trafficked, the objects ingested or inserted into the vagina and rectum were commonly packets of cocaine or heroin.[10]

Number of Objects

In the literature on the topic of foreign object ingestion/insertion, featured cases often involved multiple foreign objects. They ranged from a case of ingestion of 71 metallic objects, including a wrench, wire springs, and a razor blade,[11] to the ingestion of 206 lead bullets by a patient with schizophrenia.[12] In yet another case report, the patient swallowed numerous nails, pins, and needles before she committed suicide by hanging.[13] Hamilton Howard "Albert" Fish, an American serial murderer, was reported to have inserted 29 needles into his pelvic area through the skin between the rectum and the scrotum.[14] The amount of foreign objects ingested/inserted is of particular concern, as it can affect the severity of the clinical presentation and influence the therapeutic approach.

Motivation

The motivation that drives these behaviors is of the utmost importance when deliberate intent of insertion/ingestion is considered. For academic purposes, intent will be addressed herein as a distinct variable, independent of object or body site. For example, a copper wire may be introduced into the urethra. In one case, it may be for the purposes of sexual gratification, whereas a desire to get relief from urinary symptoms may be the driving force in another. At the same time, there are certain themes that appear to recur. For example, autoeroticism and sexual gratification are the main driving forces in many cases of urethral, vaginal, and rectal foreign object insertions.[3]

In the cases of foreign object insertion via skin, close consideration must be given to its significance as a self-mutilating behavior and to the psychopathologies that are closely associated with it. Case reports suggest that personality disorders are often identified and that the behavior occurs in the context of emotional crises and impulsivity.[2,15]

Drug trafficking plays a significant role in some cases in which the foreign object is typically inserted into the vagina or rectum. Body pusher and drug mule are terms used to describe people who insert drug packets into the rectum or vagina for transportation through law enforcement checkpoints. They are distinguished from body packers, who ingest properly packed drugs to transport them without detection, and body stuffers, who spontaneously swallow poorly packed or unpacked drugs as an attempt to dispose of the evidence when in fear of apprehension by the authorities.[16]

Within the prison inmate population, deliberate foreign object ingestion extends beyond that intended for the purposes of drug trafficking. Malingering is a frequent motivation in this group, as foreign object ingestion is used as means to be transferred to a hospital facility or medical division.[17] However, it is crucial to rule out all other possible driving forces, including genuine self-harm, suicidality, and underlying psychiatric illnesses, such as psychosis and depression, before assuming that the behavior is malingering.

Psychiatric Diagnosis

Not every case of foreign object ingestion or insertion is associated with an underlying psychiatric disorder. However, where applicable, it is imperative to address the underlying psychiatric problem promptly and to ensure appropriate psychiatric treatment to effectively prevent recurrence of the behav-

ior. Similarly, somatic illnesses must also be considered. All four of the patients in the case vignettes above presented with a positive-HIV status, an association that has not been described in the scientific literature.

Psychosis

Foreign object ingestion in psychotic patients is associated with highly repetitive behavior and high numbers of objects swallowed. This behavior may be a manifestation of delusional beliefs or a response to command hallucinations.[6,18] Case reports usually feature patients with schizophrenia.[19] In a retrospective study involving 6,112 patients treated during the period from 1988 through 1995, most of the patients had schizophrenia.[20]

Mood Disorders

Case reports of foreign object ingestion/insertion in the literature have often documented the presence of mood disorders in association with this phenomenon. Most of these cases feature patients with depressive disorders.[2,6,13,21] However, large-scale prevalence studies of mood disorders in patients who ingest/insert foreign objects are presently still lacking.

Personality Disorders

In patients with severe personality disorders, the repeated behavior of ingestion or insertion of foreign objects is generally viewed as a form of provocative, parasuicidal behavior.[6] The personality traits described in case reports commonly include dependence, attention-seeking behavior, poor frustration tolerance, and impulsivity with a propensity for self-harm.[6,15]

Malingering

Suspicion of malingering should arise when behavior is present in subpopulations that are prone to seek secondary gains, such as transfers to medical facilities. In a study of patients presenting with foreign object ingestion, jail inmates represented 69.9 percent of the cases.[22] In another study, prisoners accounted for 41.9 percent of the cases.[17] Another population in which malingering can account for foreign object ingestion/insertion behavior is institutionalized psychiatric patients.[8]

Pica

Pica is most commonly seen in pediatric populations. However, when it occurs in adults, it is frequently associated with other psychiatric diagnoses such as mental retardation, autism, and schizophrenia.[23]

Developmental Disorders

People with learning disabilities are more likely to put non-nutritive items in their mouths, often causing choking and, in some cases, death.[24] Nonchoking cases can be characterized as foreign body ingestion.

Suicide

Suicide can be associated with many psychiatric illnesses such as schizophrenia, depression, and borderline personality disorder. Although suicide by ingestion/insertion of a foreign object is far less common than other methods, such as firearms or hanging,[13] it is important to be mindful of suicide as a potential motivation for the phenomenon of foreign object ingestion/insertion. Some suicide attempts and completed suicide cases have been reported in which foreign object ingestion/insertion was the sole method or was used in combination with other methods.[6,13,25]

Discussion

Clinical Implications

Potential clinical complications and subsequent management vary greatly based on the type of ingested/inserted object as well as the body site through which it was introduced.

Ingestion

A study examining foreign object ingestion reported that this phenomenon may account for as many as 1,500 fatalities per year in the United States.[7] The majority of ingestion cases, up to 80 percent to 90 percent, result in spontaneous passage through the gastrointestinal (GI) tract.[17] Ten to 20 percent require a nonoperative intervention such as an endoscopy, whereas less than 1 percent need surgical intervention due to obstruction, perforation, or hemorrhage.[7,21] Areas of physiological narrowing or acute angulations in the GI tract are the potential sites for impaction, obstruction, or perforation.[26] Symptomatic patients tend to present with clinical signs and symptoms, such as pharyngeal discomfort, dysphagia, pain, vomiting, upper and lower GI bleeding, or acute abdomen.[8,17]

Variables to take into account when considering the management of an ingested foreign object in-

clude type of object(s) swallowed (e.g., size, shape, amount, and composition), location in the GI tract, time elapsed since ingestion, and evidence of associated complications.[7] In 2002, the American Society for Gastrointestinal Endoscopy published guidelines outlining the standard practice for management of ingested foreign objects.[27]

In cases of body packers, signs of drug toxicity from leakage of the contents of drug packets (in most cases, cocaine) or GI obstruction warrant emergency surgery. In most cases, asymptomatic patients can be managed conservatively until drug packets are spontaneously passed through the GI tract.[10]

Insertion

Given the wide range of potential presentations, it is an impossible task to establish a standard protocol for insertion cases. Delays in seeking medical attention and attempts at self-removal may lead to further morbidity and mortality in all such cases. In contrast, the patient may request ongoing work-ups to ensure that the objects are removed, when there is no clinical indication to conduct further examinations.

Infection, abscess, sepsis, and functional deficit at the site of insertion and nearby areas are the primary clinical concerns when the objects are inserted via the epithelium.[2] Urethral insertion cases tend to present with symptoms similar to acute cystitis, such as urinary frequency, dysuria, and hematuria. Management is focused on removal of the foreign object, endoscopically if possible, with minimal complications, such as trauma to the urethra and bladder and subsequent infections.[9] In cases of vaginal insertion, the presentation can range from vaginal discharge, bleeding, pain, and foul odor to signs and symptoms of local or systemic infection. In most cases, removal of the retained foreign object is sufficient to resolve symptoms without significant clinical sequelae.[28] Rectal insertion may cause abdominal pain, constipation, pain during defecation, and rectal bleeding. Perforation is the main concern in these cases.[29]

Psychodynamic Formulations

The phenomenologic details of the case examples provided herein allow for further explorations of meaning based on known psychological theories and constructs. From a developmental perspective, the somatic access point may denote a libidinal area of choice that can be correlated to stages of developmental arrest. In particular, the concurrence of sexual trauma with the stage of developmental arrest could convey guideposts of psychic conflict. From a relational perspective, key aspects of the behavior and its aftermath are inherently intertwined with the motivational objects involved. Attention-seeking could provide a conceptualization for behaviors driven by primary gain. In more profoundly disrupted object dynamics, the behavior may represent a concrete enactment of sadomasochistic organizations. For example, projective identification onto the physician may ensue, driving the physician to enact the transferential role of invasive intruder. In this capacity, the doctor provides relief through the painful removal of a transitional object, and grieves its loss in intimate togetherness with the patient. Drive theory informs the formulation of such behaviors, in that the concept of affective dysregulation and overwhelming negative affects may be temporally related to the events. Drive theory may also provide a way of distinguishing this behavior from others conceptualized as self-mutilatory. In the latter, pain is utilized as an affective release and modulatory outlet, whereas in insertion cases, pain is not consciously pursued, but inevitably occurs.

All of these components of psychic life come together at the point of character organization, whereby a useful clinical distinction may be made among neurotic, borderline, and psychotic structures. Neurotic adaptations of behavior for the purposes of personal gain carry their own biological and social underpinnings. The borderline organization stands out for its temperamental dysregulation, or what is commonly known as stable instability. This instability may account for the variability of the insertion/ingestion behaviors within a given individual, appearing to follow no stable motive, somatic locus, or pattern. On the other hand, the psychotic organization provides a window into the raw process wherein rationality is immersed within the irrationality of the psychotic phenomena of the delusion. We may identify themes of contained vengefulness and aggression—for example, in the vaginal dentate of a woman hoarding infected waste within her. At the same time, we may also identify the reparative attempt of cleaning out the aggression perpetrated on her genitals by means of hoarding products related to personal hygiene. In Case 3, paranoid control through self insertion is apparent. Sexual preoccupation and psychotic conflict over the desire of sexuality together with its inherent danger are exemplified

through the uncontrollable and invasive penetration of a wire object. A wire object may detonate a bomb within the woman's genitals, perpetrating the unconscious connection to a projected self-object that threatens annihilation.

Legal Implications

Risk Assessment for Self-injury

In addition to the indicated medical work-up, it is imperative to explore the possible psychiatric implications of self insertion of a foreign object into the body. Malpractice allegations may arise if the self-destructive or suicidal ideations are not adequately assessed and managed.[10] Therefore, risk assessment for self-injury should be incorporated into the standard practice for the management of foreign object ingestion/insertion cases.

Self-Harm Versus Harm Toward Others

The main focus of this article has been self-inflicted cases of ingestion/insertion of foreign objects. However, especially in insertion cases that involve specific body sites such as the vagina or rectum, it becomes crucial to determine whether insertion was self-induced or the object was inserted by another person, with or without the patient's consent. In the latter case, abuse, assault, and torture should be considered, and further medicolegal considerations, such as reporting to the authorities, may come into play.

Constitutional Implications

The Fourth Amendment to the U.S. Constitution states:

> The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized [Ref. 30].

The provisions of the Fourth Amendment concern privacy, as it protects against unreasonable searches and seizures by law enforcement authorities. Searches and seizures in some cases are considered to be constitutional, even without a warrant, provided the conduct passes a reasonableness test that takes into account the balance between the government's interest in investigating crimes and the extent of the intrusion into a person's privacy. The United States Supreme Court has recognized many exceptions to the warrant requirement when probable cause and certain circumstances exist. A particular exception that courts have recognized over the years is an exigent circumstance in which there is a need to engage in a search or seizure immediately due to an emergency situation, where life or safety is at risk.[30]

This point was clearly demonstrated in *United States v. Black*.[31] This case raised the question of whether a physician was acting as a police agent by conducting a search of a defendant's body cavity. The Supreme Court held that pelvic and rectal examinations are standard in cases in which an unconscious patient with a suspected drug overdose is involved. In addition, there was ample evidence that the examinations were not instigated by the police officers.

As it pertains to medical professionals in cases of foreign object ingestion/insertion, the reasoning indicates that the purpose of the search should not be to gather evidence of criminal activity. Every diagnostic and treatment measure should be guided by sound clinical judgment rather than the desires of law enforcement. The existence of a life-threatening condition overrides the requirements of the Fourth Amendment and informed consent.[30]

Ethics-Based Implications

Informed Consent

Some studies have reported delays in intervention in cases of foreign object ingestion/insertion because of the lack of consent from patients to proceed with diagnostic and treatment recommendations. Such delays appear to be more common in institutionalized psychiatric patients.[7,17]

Since some patients suspected of foreign object ingestion may not be able to give an accurate medical history of ingestion because of age, intoxication, or mental illness, it is essential that effective ways of detecting and localizing ingested/inserted foreign objects in the body be well established. In cases of foreign object ingestion and insertion, noninvasive techniques of detection such as hand-held metal detectors and plain radiograph films are preferred over invasive ones, such as body cavity searches, to preserve as much personal integrity and privacy as possible. However, it is important to recognize the limitations associated with these noninvasive methods of detection. The main drawback of metal detectors is that they can detect only foreign objects that contain metallic components. Plain radiographs detect and localize only radio-opaque foreign objects and are associated with exposure to ionizing radiation. More so-

phisticated imaging options such as endoscopy can be pursued in a step-wise manner as medically indicated.[32]

In most cases, whether an ingested/inserted foreign object should be removed is guided by clinical judgment and not by the law. However, as with any medical procedure, removal of the foreign object requires informed consent from the patient.[7] The only exception is in cases of life-threatening emergency where informed consent is not necessary.

Confidentiality

Confidentiality is a fundamental principle in the ethics of the doctor-patient relationship. When incidental findings of ingested or inserted foreign objects are made on routine examinations in a prison setting, the principle of preserving patient confidentially is put to the test. At this point, the physician is faced with the question of whether to report the discovery of ingested/inserted foreign object to appropriate authorities. Existing specific jurisdictional and institutional guidelines may assist the physician in making the decision. However, in the absence of clear legal and institutional guidelines, the physician must rely on medical profession ethics. Main factors to consider include whether there is any need for medical intervention and whether the foreign object in question is a contraband item that can pose a danger to self or others (for example, a button versus a razor blade). If there is no danger to the patient or others, the duty to protect the patient's privacy may supersede the need to report.[33]

Another area in which confidentiality comes into play is in the treatment setting of body packers. The specific question is what to do with the drugs after surgical removal, especially if the body packer is not yet in legal custody. The physician is confronted with the decision to preserve therapeutic alliance as the patient's advocate or to act as an agent of the state. Should the physician return the drugs to the body packer, who technically is the legal owner of the drugs, and risk committing the criminal offense of drug dealing? Or, should the physician turn the drugs over to the law enforcement authorities and violate confidentiality?[34] In some locales, institutional polices may be in place that address the management of confiscated illicit drugs. The process may involve using hospital security to confiscate the drugs and the pharmacy to dispose of them. When in doubt, the physician should always consider consulting with the hospital-based legal counsel and the hospital ethics committee to help find a legally and ethically sound resolution.[35]

Conclusions

I have attempted to examine intentional ingestion/insertion of foreign objects in a way that enhances clinical and academic understanding within forensic practice of this multidimensional phenomenon. The introduction of alien matter into one's body is ostensibly a practice that spans the history of mankind. It is likely grossly underreported, both in medical practice and in the scientific literature, at least from the psychiatric standpoint. Distinguishing the subtypes of the behavior appears imperative, as it can be conceptualized within categories that span from normal and culturally endorsed, to conscious means of attaining secondary gains, to subconscious maladaptive characterologic propensities, to psychotic derivation. Making this distinction may guide the clinician toward a more informed therapeutic plan by determining the motivational drive behind the observed behavior. The ultimate goal is to arrive at improved clinical practice guidelines that promote more timely and effective interventions and treatments as well as the prevention of repeated episodes in the future.

Beyond the clinical management approach, a physician dealing with an intentional ingestion/insertion case must be mindful of the diverse ethical-legal implications associated with such behavior. Attention should be given to the legal implications involved in the search, removal, confiscation, and reporting of intentionally ingested/inserted objects. In addition, an evaluation of deliberate ingestion/insertion behaviors should be routinely incorporated into forensic evaluations such as risk assessments, among others. Ethically, the balance between autonomy over a person's own body versus medical beneficence is once again brought to light in the matter of informed consent. Another important question relates to the ethics of confidentiality versus the civil duty to law enforcement.

In the absence of standardized data pertaining to the biological underpinnings of insertion and ingestion behaviors, medical professionals must enhance their approach to such behaviors through awareness of their occurrence, early identification, scientific study, psychodynamic formulation, and discussion of the ethics and legal concerns intrinsic in dealing with the phenomenon.

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