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A case report and review of literature.

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Successful transanal removal of unusual foreign body self-inserted in the rectum. A case report and review of literature.

Foreign bodies in the rectum are a true proctological emergency. The incidence of these cases is increasing in recent years mostly due to auto-erotic acts and behavior disordes and is mainly observed in young patients. Most patients with rectal foreign bodies present to the emergency room usually exhausted after efforts of removingothe object at home. Many endoscopic and surgical techniques to get such removal have been described in the literature and the reported variety of in foreign bodies is as large as the number of techniques used to remove them. Authors report a case of unusual foreign body in the rectum that required multiple attempts to be removed and an original solution.

KEY WORDS: Emergency surgery, Rectal foreign body, Transanal Extraction

Introduction

The report of a foreign object retained in the rectum is still rare even if the incidence has greatly increased in recent years. The true incidence is not known, as many patients do not seek medical attention or management and is underreported for obvious reasons [1,2]. Treatment of patients often requires a multidisciplinary approach since this condition can lead to serious complications.
However, the insertion of rectal foreign bodies represents a challenging and unique field of colorectal trauma Foreign bodies can be inserted for diagnostic or therapeutic purposes, hysteric attention- seeking behavior, treatment of anorectal disease, criminal assault and occasional accident, to alleviate constipation or, most commonly, for anal erotic stimulation or gratification [3].

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Most patients with rectal foreign bodies are men and aged 20 to 40 years : they go to the emergency room usually after efforts to remove the object at home [4-7]. Many endoscopic and surgical techniques of removalt have been described in the literature and the reported variety in foreign bodies is as large as the number of techniques used [8].
The management of a case of unusual rectal foreign body treated in our department is reported.

Case Report

A 40-year-old man came to our surgical department 2 days after the accidental insertion in the rectum of a wooden 7 x 10 cm egg for a sexual purpose. (Fig. 1) This ancient object was commonly used by housewives to mend socks. The patient complained for pain and appeared exhausted after several efforts to remove the object by himself at home.
A plain abdominal x-ray and an abdominal CT scan confirmed no sign of perforation. An attempt of digital removal was made at first under local anesthesia in order to release the sphincter and avoid pain.

Fig. 1

Fig. 2

The procedure was repeated also in different position but the egg filled completely the rectum and was placed transversally in the rectal lumen. Another attempt to remove was made under general anesthesia with more complex maneuvers, the use of a Magill's forceps and a sigmoidoscopic examination that overcome the proximal end of the object. Due to the transversal position in the rectum it was impossible to pass a large grasp since the size of the body was bigger than any available devices. Moreover, the egg was deeply impacted in the rectum so that every attempt of rotation was impossible. Thus, the patient underwent open surgery with the aim to rotate with appropriate maneuvers the egg into the rectum in order to push it out from the anus avoiding to open the rectum and to perform a stoma but even this procedure was unsuccessful.

A solution was found taking advantage of the hard consistency of the object: an orthopedic drill was placed through a CAD in the anal canal penetrating, the core of the egg under X-ray control while a pressure was exerted on the rectum to hold the object in the anal canal avoiding a cephalad migration (Fig. 2).

Despite a partial break of the foreign body it was finally possible to anchor and remove it through the anus avoiding the opening of the rectal wall and a potential stoma. The wall of the rectum was checked by sigmoidoscopic examination and "on- table" insufflation with no evidence of perforation or damage. The patient was discharged five days after surgery Two weeks after the operation the continence was normal and he complained only for a mucous soiling from the anus.

Discussion

Insertion of foreign body in the rectum is not uncommon but it always represents a serious challenge for the clinician Patients presenting with foreign bodies retained in the rectum are no longer rare although concrete epidemiological data are still [1]. The true incidence is not known, as many patients do not seek early medical attention or management is underreported for obvious reasons. In recent years this trend is dramatically increased even in female population. The earliest report of foreign bodies dates back the sixteenth century [9,10] and the largest series of patients is from 2004 describing 93 patients and reported that objects retained more than 2 days and larger than 10 cm are more likelihood to underwent surgery [11]. The mean age at presentation is 44 years, but ranges from 20 to over 90 [6-9]. With a higher proportion of male patients (17–37:1) [12]. The possible damages can be classified according the American Association of Surgery of Trauma II.

Another method of classification is based on reason for insertion (voluntary vs involuntary and sexual vs non-sexual). Voluntarily inserted objects include body packers, which is the one group of subjects where objects should be left to pass spontaneously, as any manipulation may cause rupture with catastrophic consequences for the host individual [13].

Involuntarily inserted objects often require an enhanced degree of care in dealing with the patient, as these often represent rape or abuse victims, and unfortunately commonly affect children. Sexual gratification is commonly reported by patients (and accepted by clinicians) as the reason for autoerotic or consensual sexual acts involving the insertion of foreign objects into the erogenous zones of the urethra [14-16], or [17]. A clinician would also con-

Table I - *Criteria of classification accorfing the American Association of Trauma*

Grade	Lesion	Description
I	Hematoma or laceration	Contusion or hematoma without devascularizationPartial thickness laceration of wall
II	Laceration	Full-thickness laceration of wall that compromises < 50% of circumference
III	Laceration	Full-thickness laceration of wall that compromises > 50% of circumference
IV	Laceration	Full-thickness laceration that extends into the perineum
V	Vascular	Devascularized segment of rectum

sider whether the insertion behavior represents a nonpathologic sexual preference, reflective of the diversity of human behavior, and not a "disease [18]. A deeper understanding of the patient's situation may also distinguish between nonpathologic sexual preferences and the paraphilic disorders. When a patient's sexual history reveals a pattern of recurrent behaviors, fantasies, or urges involving nonhuman objects that causes significant distress or functional impairment, a paraphilic disorder (fetishism) may be diagnosed [19]. Numerous types of objects have been described in the literature ranging from fruits and vegetables, cosmetic containers, cans or bottles, batteries, light bulbs and children or sex toys and all of them should be regarded as a potential cause of rectal damage.

However, encountering a foreign object in the rectum is still rare even the incidence has greatly increased in recent years. Treatment of these patients requires a multidisciplinary approach because this condition may have serious complications.Objects can be inserted for many different reasons, including psychiatric illness, criminal assault and accident but, most commonly, for autoerotic or sexual purposes [20]. Most patients with rectal foreign bodies present to the emergency room usually exhausted after efforts to on remove the object at home by himself.

Many endoscopic and surgical techniques to remove rectal foreign bodies have been described in the literature and the reported variety in foreign bodies is as large as the number of techniques used to remove them [21,22]. The descriptions in the available literature are anecdotic and consist largely of case reports or case series [1]. A study from Ayantunde and [23] show a progressive increase in the number of cases presented over a 5-year period from 2008 through to 2012 from a single centre. It demonstrated a significant rise in the number of cases per year compared with studies by Safioleas et al [24] who reported 34 patients over a 25-year period, Coskun et al[25] with a report of 15 patients over a 10-year study period (1999-2009), Rodríguez-Hermosa et al. [6] with 30 patients over an 8-year period (1997-2004) and our previous report of 16 cases over a 4-year period (2001-2004) (1) In the largest series of patients with rectal foreign bodies described thus far (n = 93), it was found that objects retained for more than 2 days, those larger than 10 cm and those located proximal to the rectum increase the likelihood of surgery [11]. Pelvic or abdominal pain, if perforation has occurred, bleeding per rectum, rectal mucous discharge and even incontinence or bowel obstruction can be the presenting symptoms. Clinical examination is essential to rule out peritonitis. A rectal examination should be performed, to assess the distance from the anal verge and to determine sphincter weakness even if a sphincter damage is rarely reported after a voluntary insertion. Routine laboratories and an abdominal X-ray series would define the nature, size and shape of the foreign body, its location ruling out perforation.

A CT scan is highly recommended in case of a retained foreign body for more than 24 hours Even CT scan is excellent for localization of non-opaque foreign bodies, detection of perforation or obstruction and diagnosis of pelvic abscess, in absence of any perforation or peritonitis, abdominopelvic computed tomography (CT) is not considered necessary.

Literature reports descriptions of different methods to extract foreign objects. Most of these have been performed under sedation or general anesthesia, and include manual transanal extraction, endoscopic transanal extraction and laparoscopic -assisted transanal extraction: laparotomy is the last option but, even if it is performed, the last attempt to push out the body through the anus during surgery must be considered. A colotomy must be made in case of unsuccessful removal with an unfavorable orientation of the object. Finally, Hartmann procedure may be useful for perforation and peritoneal contamination. It is worthwhile to perform follow up of these patients. Endoscopic evaluation to detect mucosal tears or lacerations is mandatory. Another important aspect is testing continence function by Wexner Continence Score, endoanal US or manometry. Indeed, these exams can present impairment of internal and/or external sphincter after removal of a rectal foreign body and sphincteroplasty showed satisfactory results in these patients.

Conclusion

We report a successful transanal removal of a large-sized rectal foreign body. There is a rising trend in the number of patients with retained rectal foreign bodies with hospital presentations and most of these objects were used for erotic stimulation. There is also a slightly high-

er rate of female population and this may be the emerging trend. It is very much likely that the increasing trend would be encountered in most hospitals and therefore, the clinicians in the emergency settings need to be well informed about the approach to the care of patients with retained rectal foreign bodies. At present clear guidelines for removal of intrarectal foreign objects have not yet been determined [26].

In cases without severe complications, transanal removal is generally attempted in the emergency unit. However, no specific criteria or guidelines have been established regarding an effective strategy for transanal removal of a rectal foreign body (27) (28)(29). The factors that determine whether a rectal foreign body can be removed transanally are the shape, size, and location of the object [11] .

Riassunto

I corpi estranei del retto costituiscono una vera emergenza chirurgica. L'incidenza è cresciuta negli anni piu'recenti specialmente tra i giovani e principalmente per l'incremento delle pratiche auto-erotiche e dei disturbi comportamentali. La maggior parte dei pazienti si presenta al pronto soccorso dopo inutili ed estenuanti tentativi di estrazione praticati a casa. Le tecniche utilizzate e riportate in letteratura sono varie almeno quanto il numero e la forma degli oggetti. Viene di seguito illustrato il caso di un oggetto "inusuale" inserito nel retto a scopo autoerotico estratto con una soluzione originale dopo numerosi tentativi senza successo

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