Inguino-Scrotal Textiloma After Surgery: About A Rare Case

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Abstract
Textiloma is a very rare but well-known post-operative complication and is one of the most serious medical faults. It can be a foreign body composed of compresses or surgical drapes left at the surgical site. In this work, we present the case of a 60-year-old Cameroonian man who had undergone a cure for an inguino-scrotal hernia 7 days earlier and whose exploration for the management of complications revealed a textiloma.

Introduction
Gossypiboma (from the Latin Gossypium = cotton and Swahili boma = hiding place) also called Textiloma (from the Greek textile and ome = tumor) is defined as the inadvertent retention of a textile foreign body after surgery. This is probably the oldest and most obvious mistake in surgery [1]. From a pathophysiological point of view, textile fibers cause an inflammatory reaction with exudation as early as the 24th hour, followed by the formation of granulation tissue (8th day), finally, fibrosis sets in from (13th day). This evolution explains, in the absence of infection, the possibilities of encysting or even calcification with a sometimes-long tolerance. The history is therefore essential in the elaboration of the diagnosis. The clinic lacks specificity [2]. Clinical manifestations can be frustrating and imaging sometimes allows a diagnosis of certainty [3]. We report the case of an inguino-scrotal textiloma in a 60-year-old male Cameroonian who had undergone an inguino-scrotal hernia operation 7 days earlier, which was complicated by scrotal swelling, and whose surgical exploration revealed a textiloma.

Patient and observation
Mr. X 69 years old, married, retired teacher with past history of herniorrhaphy for a left inguinal hernia since 20 years ago and a cure for an inguino-scrotal hernia 07 days earlier by a general practitioner during a health campaign in a district hospital in Cameroon. He consulted 7 days after surgery for an inguino-scrotal swelling that had been evolving for 06 days, progressively increasing, not painful, asymmetrical, more marked on the right, completely drowning the penis, without any micturition or digestive problems. The clinical examination at the entrance found a patient with a preserved general state, apyretic, with blood pressure of 116/68 mmHg and a Pulse at 92 beats/min. He presents a significant inguino-scrotal swelling, predominant on the right, with the skin facing the trophic disorders; notably indurated on palpation, cold and not painful; the testicle is palpable on the left and not palpable on the right (Figure 1); the trans illumination test is not contributory; the rectal examination reveals a slightly enlarged prostate. The rest of the physical examination is unremarkable. The results of the biological explorations reveal a slight anemia at 10.5 g/dl, normocytic and normochromic; the platelets are normal as well as the rest of the coagulability test. Moreover, the rest of the biological examination is without particularity.

In terms of morphological explorations, an inguino-scrotal Doppler ultrasound scan did not reveal any right inguinal dehiscence, but did suggest a large bilateral inguino-scrotal hemorrhagic effusion predominating on the right with a perifunicular inguinal and right scrotal hematoma, estimated at 145 ml, probably on a venous wound, with epididymal-testicular vascularization preserved. The diagnosis of postoperative inguino-scrotal hematoma is made. After counselling and obtaining the patient’s consent, an emergency surgical exploration was indicated under local anesthesia after pre-anesthetic...
The surgical approach was double, first at the right scrotal level, then right inguinal through the old incision. The intraoperative findings were a right scrotal hematoma of old foul smelling blood estimated at about 100 ml, a right testicle increased in volume with a borderline staining, a swollen spermatic cord all the way through, a textiloma made of a sheet of small compress 40 cm × 40 cm (Figures 2 and 3); no active bleeding was seen. The procedures consisted of drainage of the scrotal hematoma, extraction of the textiloma, abundant washing with warm saline, placing a lamellar drain for drainage through the scrotal incision, plane-by-plane closure and bandaging of the scrotum. The postoperative evolution was favourable, the patient was discharged 03 days after the operation after removal of the drain, and after 14 days, we note a complete regression of the inguino-scrotal oedema.

Discussion

Textiloma is a rare complication in urological surgery and only accounts for 10% of all textiloma reported in the literature [4]. Our case was about the inguino-scrotal textiloma following cure of inguinoscrotal hernia, which is a very rarely described case of textiloma. According to these publications, the incidence ranges from 1/833 to 1/32,672 [1, 2]. The actual incidence of this medical error is certainly higher, as fear of litigation prevents many practitioners from reporting [1]. Gwand et al in 2003 identified eight risk factors for textiloma; unexpected change in the operating protocol, error in counting compresses, context of emergency intervention, participation of more than one surgical team in the operation, the patient’s body mass index, the volume of bleeding, change in the paramedical team “instrumentalists, assistants. The “instrumentalists, assistants”, the female sex [3]. We have only been able to identify the first two risk factors when we know that during a health campaign in a rural environment, there are many patients to be treated in a very short space of time and this often leads the health facility team to review its operating protocols. The introduction of the World health organization safety checklist for operating theatres has been proposed as a useful complement to the prevention of mishaps such as the retention of surgical foreign bodies [5]. Two forms of this immune reaction have been described: the acute necrotic form and the chronic form. The acute necrotic form is characterized by the predominance of exudative reactions responsible for clinical and biological manifestations. In the chronic form, an aseptic fibrous capsule is formed around the foreign body, thus limiting the inflammatory reaction. In this case, the clinical and biological manifestations are frustrated and the “textiloma” acts as a slow evolving tumor process. In our case, the clinical inflammatory elements were in the foreground [3].

The lapse of time between the causal surgery and the discovery of the forgotten textile material varies from a few minutes to forty years [1]. In our case the interval between the surgery and the discovery of the textiloma was 07 days, which can be explained by the location of our intervention, which was superficial, thus facilitating the installation of the symptoms and therefore the intervention that led to the removal of the textiloma [6]. In fact, deep localizations, secondary to heavier surgeries, are the most reported, particularly in the abdomen (56%), pelvis (18%) and thorax (11%) [1, 7]. According to studies of 238 cases of surgical re-interventions in underprivileged areas, intraoperative findings ultimately led to the diagnosis of textiloma in 5% of cases [8]. This is by no means negligible in view of the complications.

Although the removal of the textiloma leads to an uncomplicated cure in almost 60% of patients, complications aggravate the course of the initial disease in 21% of cases and about 16-18% of patients die from causes attributable to textiloma [2, 6, 8]. Although the majority of deaths concern symptomatic textiloma recognized late, having required more aggressive surgeries (intestinal and/or colonic resection) with a significant percentage of severe complications, particularly sepsis [2]. This undesirable event can be avoided by using radio-opaque band-marked compress systems, which have significantly limited this type of incident [5]. The authors suggest that where little progress has been made and an expensive radio frequency marking system may not be practical; the introduction of the WHO safety checklist for operating theatres may be a useful addition to the prevention of incidence such as the retention of surgical foreign bodies. It is a simple checklist for operating theatre staff, including doctors and nurses, and helps in counting the number of sponges and instruments at the end of the operation; thus an easy and cost-effective way of standardizing operating protocols [5, 7].

Conclusion

Textiloma remain rare events although the true numbers are poorly known and can be of interest to all surgeries, from the most basic to the most complex. Prevention through the checklist remains the main treatment, which is not always the case in our environment. Although different methods to aid
in diagnosis are being developed. It is therefore appropriate for each operator to be vigilant from the beginning to the end of the intervention, regardless of the type and context of the surgery.

**Ethics approval and consent to participate:** As a Case Report, the study is exempt from Ethnical approval in my institution.

**Consent for Publication:** Written informed consent was obtained from patient’s for publication of this case report and any accompanying images. Any identifying material has been removed, including the patient’s name, date of entry, face or any distinctive features on the pictures taken.

**Availability of data and material:** Data sharing is not applicable to this article as no data sets were generated or analyzed during the current study.

**Competing interests:** The authors declare that they have no competing interests.

**References**


