CLINICAL CASE
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Concealed penis in a giant inguinoscrotal hernia

Pene oculto en hernia inguinoescrotal gigante

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ABSTRACT

Introduction: giant inguinoscrotal hernia is an entity that an acquired occult penis can accompany; the combination of these two entities demands additional management to hernioplasty. The adequate approach is transcendental due to the urological and psychological complications associated with an occult penis. **Case report:** we report the case of a 43-year-old male patient with a giant inguinoscrotal hernia reaching the mid-thigh, accompanied by an occult penis. A mesh repair was performed conventionally using the Lichtenstein technique, followed by scrotoplasty with subsequent release of the dartos and suspensory ligament of the penis. There were no postoperative complications. **Conclusions:** combining these two entities has a significant psychological impact on patients. The general surgeon who performs abdominal wall surgery should know about the management of the occult penis for its treatment in conjunction with inguinoscrotal hernioplasty.

RESUMEN

Introducción: *la hernia inguinoescrotal gigante es una entidad que puede acompañarse de un pene oculto adquirido; la combinación de estas dos entidades demanda un manejo adicional a la hernioplastía. El abordaje adecuado es trascendental debido a las complicaciones urológicas y psicológicas que conlleva el pene oculto.* ***Caso clínico:*** *paciente masculino de 43 años con una hernia inguinoescrotal gigante que llega al punto medio del muslo acompañada de un pene oculto. Se efectúa una reparación con malla de manera convencional, empleando la técnica de Lichtenstein; posteriormente, se realiza una escrotoplastía, con subsiguiente liberación del dartos y el ligamento suspensorio del pene. No se presentaron complicaciones postquirúrgicas.* ***Conclusiones:*** *la combinación de estas dos entidades tiene una repercusión psicológica significativa en los pacientes. El cirujano general que realiza la cirugía de pared abdominal debe tener el conocimiento sobre el manejo del pene oculto para su tratamiento en conjunto con la hernioplastía de hernias inguinoescrotales.*

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INTRODUCTION

The concealed penis in the adult is an entity commonly observed in patients with obesity and the presence of large inguinoscrotal hernias. In general, the corpora cavernosa and glans penis are typical (in length). However, the penis is hidden by an excess of suprapubic fat, as well as a lack of fixation of the penopubic and penoscrotal angles.[1] The hidden penis is divided into membranous (alteration in the attachment of the scrotal skin to the penis), buried (excessive fat at the suprapubic level with a defect in the elasticity of the dartos), and trapped (secondary to scarring following a procedure in the area).[2] Due to this entrapment of the penis, together with the loss of visibility, the complications generated are altered urination, recurrent infections (bacterial or fungal), erosion or ulcers in the region, and sexual dysfunction.[3] This condition produces significant stress, depression, and even suicidal ideation.[4]

Giant inguinoscrotal hernias are those that exceed the midpoint of the inner thigh in patients who are in a standing position.[5] They are classified according to the extension of the hernial sac: type 1 extends just up to the middle portion of the thigh, type 2 extends up to the patella's upper edge, and type 3 goes beyond

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the patella.[6] Complications include difficulty walking ("bouncing ball effect"), occult penis, dermatitis, occult and recurrent infection, and scrotal ulceration.[5]

This paper aims to present the management of a patient with an occult penis secondary to a giant inguinoscrotal hernia.

CLINICAL CASE

A 43-year-old male patient attended the outpatient clinic for abdominal wall surgery, with the presence of a mass in the left inguinal region, reporting discomfort and inability to ambulate (the mass "bounces" against the thigh) and occasional pain (tolerable). Upon interrogation, he revealed no relevant history or chronic diseases.

On physical examination, the patient weighed 102 kg, had a height of 1.72 cm, and had a body mass index (BMI) of 35.2 kg/m^2. He had a non-reducible, sizeable inguinoscrotal mass that reached the mid-thigh, with peristaltic noises and no translucency. In addition, an occult penis was observed along its entire length, and the presence of dermatitis in the inguinal region and the abdominal-pubic crease *(Figure 1A)*. He was scheduled for inguinal hernia repair, phalloplasty, and scrotoplasty.

After antibiotic administration (cephalexin, one gram per intravenous route one hour before the procedure), the intervention was performed under regional anesthesia with an epidural catheter; the patient was positioned in dorsal decubitus, a bladder catheter was placed to empty the bladder, and splint the urethra, allowing its identification during the procedure to avoid injury. The inguinal hernia was repaired conventionally with the Lichtenstein technique (modified), reducing the sigmoid colon and the omentum containing the hernia. A lightweight macroporous polypropylene mesh was placed and anchored to the inguinal ligament, Cooper's ligament, and the joint tendon (polyglactin 910, 2-0 gauge). Once the hernia was repaired, the inguinal wound was closed with single and separate stitches (polyglactin 910, 2-0 gauge) in the subcutaneous cellular tissue and single stitches in the skin (polypropylene, 3-0 gauge). Subsequently, scrotoplasty was performed, resecting a spindle of scrotal tissue (longitudinal direction) and giving access to the penis from an inferior approach. Through the incision made in the scrotoplasty, the lax adhesions were released until reaching the base of the penis, freeing the suspensory ligament in the dorsal region and the pubis; fixation stitches (simple and separate) were placed from the dartos to the albuginea of the dorsal and lateral face of the penis (polyglactin 910, 3-0 caliber), creating the penoscrotal and penopubic angles. After fixing the angles and with the release of the suspensory ligament, the penis showed a circumcision-like appearance (due to the deficit of penile skin), leaving the glans uncovered. A prominent penis and elongation were immediately obtained *(Figure 1B)*. The ipsilateral testicle was then fixed to the scrotum at two points (lateral and fundus) with simple stitches (polyglactin 910, 3-0 gauge), and the scrotoplasty incision was closed with inverted stitches (chromic catgut, 3-0 gauge), leaving an open Penrose-type drain located in the scrotal pouch.

The procedure lasted 145 minutes; no complications occurred during or in the immediate postoperative period. Adequate analgesia was obtained with intravenous ketorolac 30 mg every eight hours. The patient was discharged 24 hours after surgery and maintained with urethral catheterization until discharge. The follow-up time was six months, with good aesthetic and functional aspects.

COMMENTS

Giant inguinoscrotal hernias have a prevalence of 2.8-5% of all cases of inguinal hernia,[7] although this figure could be higher in Mexico. This condition is associated with populations in developing countries with a low educational, social, and economic level, which means that patients with this type of hernia delay seeking medical attention, and with this, an increase in the severity of the condition is usually seen.[8] Inguinoscrotal hernias can be so large that they can cause loss of domicile[9] and can bring with them complications that impact the patient's quality of life. Serious complications include intestinal obstruction, peritonitis, intestinal perforation, sepsis, and even death.[10]

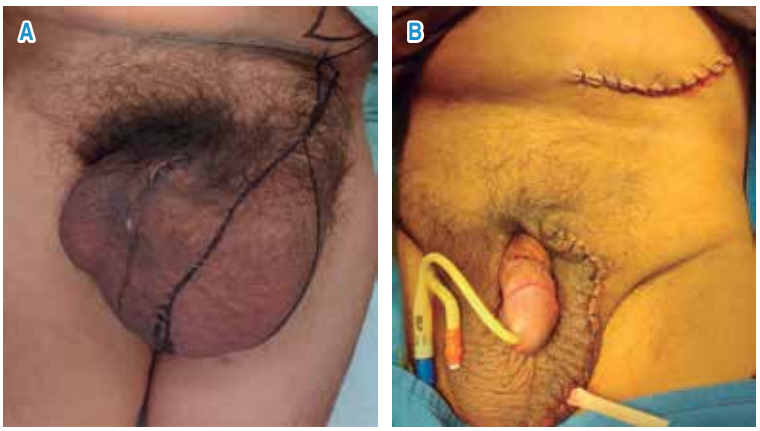

Figure 1: A) *An inguinoscrotal hernia and scrotoplasty marking, showing the penis hidden by the laxity of the scrotal tissue, as well as the scrotal mass conditioned by the hernia, is shown.* ***B)*** *The immediate results of conventional hernioplasty, scrotoplasty, and phalloplasty are shown.*

Correction of the concealed penis in the adult is achieved by releasing the abnormal attachment of the dartos, making new penoscrotal and penopubic angles.[11] We recommend performing in conjunction with the release of the suspensory ligament of the penis (which gives the appearance of greater length), which can also be used on its own as an alternative in unusual cases where the dartos cannot be released.[12] Pubic fat liposuction, pubic dermolipectomy,[13] a suprapubic Z-plasty,[1] and even partial thickness grafting may also be performed.[14]

As part of the postoperative care, patients are advised to avoid sexual intercourse; however, it is recommended not to avoid erections since the inability to have erections is indicative of a failure of the procedure and unsatisfactory results.

In patients with giant inguinoscrotal hernia and hidden penis, there is a psychological impact, so when treating these cases in the hernia and abdominal wall surgery unit, it is necessary to offer the best integral treatment for the patient (correction of the hernia and phalloplasty). The complexity of abdominal wall pathology obliges the general surgeon to specialize in functional and aesthetic reconstruction procedures, improving the patient's quality of life.

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