Penil Protez Sonrası Görülen Nüks İnguinal Herni ve Rezervuar Migrasyonu

Recurrent Inguinal Hernia and Reservoir Migration after Three-Piece Penile Prosthesis Implantation

Penil Protez Komplikasyonları / Complications of Three-Piece Penile Prothesis

Ali Avcı[1], Özcan Altinel[2], Ismail Hakki Ozerhan[2], Nail Ersoz[2], Mustafa Tahir Ozer[2]
[1]Department of Emergency Medicine,GATA, Etlik, Ankara, Turkey.
[2]Department of General Surgery, GATA, Etlik, Ankara, Turkey.

Özet

60 yaşında sağlıklı erkek hastaya erektil disfonksiyon nedeni ile penil protez imp¬lantasyonu uygulanmadan bir yıl önce bilateral inguinal herni ameliyatı uygulan¬mıştır. Operasyondan 3 ay sonra rezervuarın yerleştirildiği sol inguinal bölgede nüks inguinal herni gözlendi. Rezervuar hem herniye ve aynı zamanda migrate idi. Penıl protez implantasyonu ameliyatlarının bir çok komplikasyonu olsada, rezer¬vuar alanında nüks inguinal herni komplikasyonu oldukça nadirdir. Penil protez rezervuarın yerleşimi ve transvers fasiyaya baskısı sonucu olası duvar zayıflıkları rekürrens olasılığını hızlandırabilirler. Cerrah, mutlaka Penile prosthesis implantas¬yonu öncesi inguinal kanalı dikkatlice muayene etmeli ve herni durum-larında tamir için tension free yöntemleri uygulanmalıdır.

Anahtar Kelimeler

Penil Protez, Nüks İnguinal Herni, Reservuar Herniasyonu.

Abstract

A healthy 60 years-old man was operated for bilateral inguinal hernia a year before implementation of penile prosthesis implantation. Three months after PPI, inguinal hernia recurrence occurred on left side in which reservoir of penile prost-hesis was placed. Reservoir was both herniated and migrated. Although there are lots of complications due to penile prosthesis implantation, recurrent inguinal hernia is a rare complication in reservoir area. Surgeon must examine the inguinal region carefully before PPI operation. If there is a herniation, general surgeons should perform tension-free herniography. As a result of place and pressure of reservoir of penile prosthesis, weakness of wall might increase the likelihood of recurrence.

Keywords

Penile Prosthesis, Recurrent Inguinal Hernia, Reservoir Herniation.

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Corresponding Author: Ozcan Altınel, General Surgeon. Department of Emergency Medicine, Etlik, 06018, Ankara, Turkey.
Phone: +903123043076 · GSM: +905354959283 · E-mail: ozcanaltinel@yahoo.com

Introduction

Penile prosthesis implantation (PPI) is the most successful and reliable way of restoring sexual functions in patients with erectile dysfunction. [1] The main complications of this treatment modality are infection and mechanical failure [1]. However, inguinal hernia recurrence after PPI is a very rare complication. We report a patient with recurrent inguinal hernia after PPI surgery.

Case

The patient, a healthy 60 years-old man, was operated for bilateral inguinal hernia. This operation was made another hospital. Operation was performed without using mesh. For almost a year, he was 61 years old, the patient had no complaint and there was no sign for hernia recurrence. At the end of the first year, he was 61 years old, the patient underwent three-piece inflatable PPI for erectile dysfunction. Reservoir was placed in a space behind the rectus muscles through pouch made by using suprapubic incision. Its instruments including pump were passed through inguinal canal and pump was implanted in the scrotum. We did not make peno-scrotal incision to place pump in scrotum. Tunnel was formed through suprapubic incision. AMS 700 TM Penile Prosthesis was used for operation.

Three months after PPI, inguinal hernia recurrence occurred on left side. The patient had giant mass at inguinal area as a direct hernia. His symptoms were pain and mass in the left inguinal area. When he was in admission for repairing inguinal hernia, he said he had been using his prosthesis without any problems. We examined the patient to be sure whether prosthesis was functioned. His prosthesis functioned well. Both general surgeons and urologists were present in the operation during which it was observed that the sigmoid colon had herniated in a direct inguinal hernia sac. The reservoir of penile prosthesis had also herniated and migrated near the anteromedial side of hernia sac, though the connector tubes, the pomp and cylinders were intact and functional (Figure 1). It was difficult to dissect preperitoneal space and the herniated reservoir. Posterior wall of the inguinal canal was defective and weak. There was no sign for inguinal hernia on the right side. Tension free inguinal hernia repair was performed by using mesh. The reservoir was repositioned and the function of penile prosthesis was assessed.

Discussion

Loss of erectile function for men over 40 years old is the second most commonly reported form of sexual dysfunction (15 %) [2]. Therefore, PPI is a trustworthy and successful third line treatment option for this disorder. Three-piece inflatable prostheses prove to be the most satisfactory and popular devices for this aim. It consist of two inflatable cylinders placed in the corporal bodies, a small pump that resides in the scrotum, and a large fluid reservoir that is placed extraperitoneally into a space in front of the bladder.

Complications of the penile implant consist of infections, malfunction, patient dissatisfaction, migration of the device, spontaneous deflation, spontaneous inflation, perforation, tubing kinks, fluid leaks, aneurysm, dilatation of the cylinders, silicone spillage, and erosion of the reservoir, pump or pump reservoir migration [4]. Reservoir migration is a rare complication with a reported incidence of 0.7% and is seen almost exclusively in devices placed through a scrotal / peno-scrotal incision [5]. Some authors declared that reservoir migrations might have occurred in the immediate postoperative period as a result of improper surgical technique, strong coughing or vomiting. But it was unclear whether the herniation was inguinal or not [5]. One case of inguinal hernia with reservoir herniation to the scrotum after PPI surgery was reported [6].

Old age and male gender are major risk factors for inguinal hernia. Erectile dysfunction is also a problem of old age. Therefore, association of inguinal hernia and erectile dysfunction is more frequent in the elderly. In addition, PPI is performed in the inguinal region and implantation of foreign bodies may weaken the posterior wall of inguinal canal. The weakness of the abdominal wall within Hasselbach's triangle is the main reason of direct inguinal hernia. The reservoir of penile prosthesis is positioned in the preperitoneal area just over the Hasselbach's triangle and may contain up to 100 ml of saline. Because of this volume the reservoir is a potential factor increasing pressure against for transversalis fascia

In healthy individuals, the resistance of posterior inguinal wall does not permit such a problem. The distorted anatomy in the inguinal region in patients who underwent inguinal hernia repair may help the device to herniate. An estimated 25% of all hernia recurrences present within a year of the hernia repair [3]. In this patient, a conventional hernia repair without prosthetic graft was the first operation and hernia recurrence was not in the immediate postoperative period but it became evident by the third month after PPI. We consider that the hernia repair was not strong and the large volume of reservoir facilitated hernia recurrence.

Conclusion: It is important to be aware of the possibility of inguinal herniation and weakness of posterior wall with or without reservoir migration after PPI surgery. Surgeons must examine the inguinal region carefully before PPI operation. If there is a herniation, general surgeons should perform tension-free herniography. Although there are not many articles about this topic, we consider that the incidence of recurrence may be reduced by this approach.

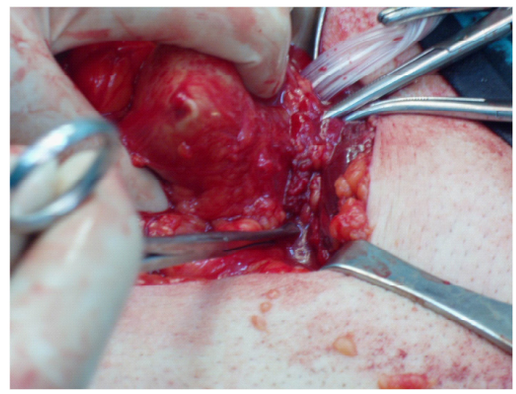

Figure 1. The reservoir of penile prosthesis was herniated and migrated.

References

1. Moncada I, Martinez-Salamanca JI, Allona A, Hernandez C. Current role of penile implants for erectile dysfunction. Curr Opin Urol. 2004;14:375-80.
2. Nicolosi A, Glasser DB, Kim SC, Marumo K, Laumann EO; GSSAB Investigators' GroupSexual behaviour and dysfunction and help-seeking patterns in adults aged 40-80 years in the urban population of Asian countries. BJU Int. 2005;95:609-614.
3. Postlethwaite RW. Recurrent inguinal hernia. Ann Surg. 1985; 202: 777-9.
4. Lotan Y, Roehrborn CG, McConnell JD, Hendin BN. Factors influencing the outcomes of penile prosthesis surgery at a teaching institution. Urology. 2003b;62:918-21.
5. Sadeghi-Nejad H, Sharma A, Irwin RJ, Wilson SK, Delk JR. Reservoir herniation as a complication of three-piece penile prosthesis insertion. Urology. 2001;57:142-5.
6. Tiguert R, Tefilli MV, Gheiler E, Shekarriz B, Upadhyay J, Dhabuwala CB. Inguinal hernia as a rare cause of penile prosthesis malfunction. A report of two cases. Urol Int.1998 60:262-3.