CASE REPORT / OLGU SUNUMU

REPAIR OF GIANT INGUINAL HERNIA UNDER REGIONAL ANESTHESIA IN A PATIENT WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

KRONİK OBSTRÜKTİF AKCİĞER HASTALIĞI OLAN HASTADA REJYONEL ANESTEZİ İLE DEV İNGUİNAL HERNİ ONARIMI

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SUMMARY

Giant inguinal hernias are considered as hernias extending below the mid-point of the inner thigh when the patient is standing. They cause impairment in patients' quality of life. We report a case of 81-year-old male patient with right giant inguinal hernia repaired by polypropylene mesh under regional anesthesia. Tension-free on lay mesh repair without loss of domain can be performed for giant inguinal hernias under regional anesthesia especially in patients with pulmonary disorders.

KEY WORDS: *Giant inguinal hernia, Regional anesthesia, Mesh repair*

ÖZET

Dev kasık fıtıkları, hasta ayakta dururken uyluğun iç yüzü orta noktasından aşağı uzanan fıtıklar olarak adlandırılır. Hastanın yaşam kalitesini düşürürler. Bu çalışmada sağ dev hernisi bölgesel anestezi altında polipropilen yama uygulaması ile onarılan 81 yaşında erkek bir hastayı sunuyoruz. Dev inguinal hernilerin gerilimsiz örgü onarımı etki alanı kaybı olmadan, özellikle akciğer problemi olan hastalarda, bölgesel anestezi ile uygulanabilir.

ANAHTAR KELİMELER: *Dev kasık fıtığı, Rejyonel anestezi, Örgü onarımı*

INTRODUCTION

Giant inguinal hernias (GIH) are commonly encountered in developing countries (1). They are considered as hernias extending below the mid-point of the inner thigh when the patient is standing (2). They cause impairment in patients' quality of life. Multiple treatment options have been described, from simple reduction of contents into abdomen to debulking of abdominal contents (3). The important problem in surgical strategy is the loss of domain and increased intra-abdominal pressure. We report a case of giant inguinal hernia repaired with polypropylene mesh under regional anesthesia.

CASE

A 81-year-old male patient admitted to Emergency Department with a complaint of constipation and obstipation for 10-days. He had a history of chronic obstructive pulmonary disease (COPD) for 15 years moderately controlled with medical therapy. Physical examination revealed right giant inguinal hernia extending below mid-inner thigh (Figure 1). Distension and sensitivity was observed in right scrotal sac and peristaltism of the intestine was visible. Rectal examination revealed no finding. His hernia was present for more than 20 years. Abdominal Computerized Tomography (CT) was done in order to determine involved organs and viability of

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Figure 1 . Right giant inguinal hernia extending below mid-inner thigh

Figure 2. Abdominal Computerized Tomography of the patients howing giant hernial contents

them. Almost all small bowel, cecum and ascending colon were located in right inguinal sac (Figure 2). Air-fluid levels in small bowel and collapse of the colonic segments distal to the ascending colon were supporting the diagnosis of intestinal obstruction. Patient was transferred to the operating room after the evaluation. Regional anesthesia (Spinal anesthesia) was preffered due to co-morbidity of the patient.

At the operation hernia sac was dissected with standard right inguinal incision. Spermatic cord was isolated. After the sac was opened, distented bowel was observed however all the contents were able to sent back to abdomen without increasing intraabdominal pressure. Hernia sac was containing small bowel, cecum and ascending colon. The sac was closed with 2/0 vicryl® (Ethicon, Somerville, USA), transveraslis fascia was plicated and a 10x15 cm. polypropylene mesh was used to repair defect (Lichtenstein tension-free on lay mesh repair). No resection of the involved organs was necessary. Drain was placed in the scrotum,wound was closed according to anatomical layers. Patient did not have any early postoperative pulmonary complications. His medical therapy for COPD was given postoperatively. He was discharged on postoperative day 3. Drain was removed on postoperative day 13. Patient developed no complication on 1st month follow-up. Informed consent was taken from the patient.

DISCUSSION

Giant inguinal hernias are rare forms of inguinal hernias and result from long duration of patient neglection. GIH are being reported increasingly in developed countries (3). They are defined as hernias extending below the mid-point of the inner thigh when the patient is standing (2). It is important to determine extension level of the hernia that can predict severity and surgical management of the disease. Trakarnsagna et al (4). determined new classification for GIH. According to this classification our patient has Type 1 GIH. In this type, first step in management is composed of attempt for reduction of the hernia manually and then surgical approach with hernioplasty is recommended. Intraabdominal pressure monitorisation is another crucial step in postoperative period even in cases of Type 1 GIH. The patient may have pulmonary problems additionally. In our case even the patient has a history of COPD, no postoperative pulmonary complication observed. Lichtenstein tension-free on lay mesh repair is the most commonly performed

for mild GIH and found to be effective treatment modality (5). We also preferred Lichtenstein repair for our patient even he has distended intestine. But the type of GIH encouraged us to decide this treatment modality.

Sometimes loss of domain can be inevitable. Resection of hernia contents increases morbidity of the situation. Preoperative progressive pneumoperitoneum induction is another technique that can be used in GIH (6). However recently another technique (Hug technique) has been introduced and given satisfactory results (7). Surgical techniques can be performed according to type of the hernia.

GIH however considered to be benign conditions, due to complications, should be evaluated multidisciplinarily and urgent surgical management is mandatory. Strangulation and intestinal obstruction are common complications but even potentially fatal complications can be observed in patients with preoperative co-morbid disease (8). For instance our patient admitted with the symptoms and findings of intestinal obstruction and additionally posses COPD. These findings direct us to perform minimally invasive surgical approach and regional anesthesia. Together with his comorbidity general anesthesia may be fatal for this patient.

The preferred anesthesia type is commonly general anesthesia for GIH. However regional anesthesia can be kept in mind especially in cases with pulmonary insufficiency. But close postoperative follow-up should be made carefully.

CONCLUSION

Tension-free on lay mesh repair without loss of domain can be performed for giant inguinal hernias under regional anesthesia especially in patients with pulmonary disorders.

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