Symptomatic giant lymphocele following kidney transplantation managed with percutaneous sclerotherapy

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ABSTRACT

One of the most frequent complications in kidney transplantation is the formation of lymphocele. Lymphocele is the collection of lymph in areas of the retroperitoneum in which the cavity is not epithelized. Percutaneous sclerotherapy is one of a variety of management techniques utilized in this disease.

Objective: To present the clinical case of a male patient who presented with symptomatic giant lymphocele after receiving deceased-donor kidney transplantation.

Conclusions: Even though minimally invasive laparoscopy is the treatment of choice, it is important to be familiar with other alternatives, such as the utilization of sclerosing substances for management of this complication.

Keywords: Lymphocele, kidney transplantation, percutaneous sclerotherapy, Mexico.

RESUMEN

Una de las complicaciones más frecuentes del trasplante renal es la formación de linfocele, que consiste en una colección de líquido en localización retroperitoneal, cuya cavidad no se encuentra epitelizada. Variadas técnicas de manejo se han descrito una de ellas es la escleroterapia percutánea.

Objetivo: Presentar el caso clínico de un hombre, receptor de trasplante renal de donante fallecido, con linfocele gigante sintomático.

Conclusiones: Si bien el tratamiento mínimamente invasivo vía laparoscópica es de elección, es importante conocer otras alternativas como la utilización de sustancias esclerosantes para el manejo de esta complicación.

Palabras clave: Linfocele, trasplante renal, escleroterapia percutánea, México.
• INTRODUCTION

One of the most frequent complications of kidney transplantation is the formation of lymphocele with a reported incidence between 1.1-58%. Lymphocele is a collection of lymph localized in the retroperitoneum whose cavity is not epithelized. It presents more frequently in patients with deceased-donor kidney transplantation. Various management techniques have been described, one of which is percutaneous sclerotherapy that is indicated in symptomatic and large volume hydrocele.

The case of an adult male deceased-donor kidney transplantation patient with complication of giant lymphocele at graft site is presented. Imaging studies are shown and management and results are described.

• CASE PRESENTATION

Patient is a 35-year-old man with terminal kidney failure who underwent deceased-donor kidney transplantation in October of 2005. Urethral balloon dilatation was carried out that revealed urethral stricture. Micturition cystogram was ordered that showed a bladder that was displaced to the left (Image 1). Urinalysis reported no alterations and urine culture did not develop; urea was 60 mg/dL and creatinine was 2.5mg/dL. Ultrasound image showed a large cavity with liquid content localized in the pelvis. Dilatation of the renal pelvis was also observed in the transplanted kidney (graft) (Images 2 and 3). Computed tomography (CT) scan revealed a giant cyst in the pelvic cavity, compatible with lymphocele, that compressed and displaced the bladder (Images 4, 5 and 6).

Giant lymphocele diagnosis was made from these studies and laparoscopy was suggested to the patient but he declined, after which puncture, drainage, and alcohol sclerosis by means of image-guided percutaneous approach was proposed. Intervention was carried out as outpatient procedure draining approximately 1200 cc of serous fluid. 200 cc of alcohol was used and was left inside the cavity for half an hour. Drainage catheter was left in place for 10 days and removed when scant output was observed. After procedure urea and creatinine levels decreased to normal levels. Ultrasound study revealed kidney graft with no dilatation and absence of lymphocele. Cytopathological result of lymphocele liquid reported proteinic matter with inflammatory cell and abundant lymphocytic components.

• DISCUSSION

Insufficient ligature of lymphatic vessels during dissection is a cause of lymphocele formation. It has also been suggested that lymphocele could arise from lymphatic vessels in the renal sinus of the kidney graft. Some risk factors for the complication are: extensive perivascular dissection of the iliac vessels, episodes of acute rejection, function delay of deceased-donor graft vs live
donor graft, high dose steroid therapy, retransplantation, and presence of polycystic disease. Lymphocele presents in many cases 1 year after transplantation and can be symptomatic or asymptomatic, depending on size. Symptoms may include elevation of serum creatinine level, palpable mass or abdominal pain, edema of pelvic members due to iliac vein compression, bladder symptoms due to extrinsic compression, and pyelonephritis. The patient presented here had urinary urgency and abdominal distension.

In regard to treatment, many methods have been described for resolving this complication including US- or CT-guided simple percutaneous drain and the use of sclerosing substances such as alcohol, tetracycline, povidone iodine, and even fibrin sealant, all of which have demonstrated relative success and been characterized by high recurrence rate. Despite these reports, the result of the present case was satisfactory and the therapy used is considered to be a good management alternative.

Currently many authors recommend cyst marsupialization with laparoscopic omentoplasty. This procedure has had more reported successes, leaving open procedure only for multiloculated lymphoceles and those adjacent to vital structures. However, patients sometimes prefer simpler procedures in order to avoid greater complications and thus feel more confident about kidney conservation.

CONCLUSIONS

Even though the treatment of choice in these cases is laparoscopic surgery, it is important to be aware of other management alternatives such as the use of sclerosing substances for resolving lymphoceles with good results.

BIBLIOGRAPHY