Case Report

New compression mechanism in penile-scrotal lymphedema and sexual rehabilitation

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Abstract

The objective of this study is to describe a new compression mechanism in the treatment of lymphedema of the penis and scrotum and the ensuing sexual rehabilitation. The patient, a 58-year-old man, had edema of the penile and scrotal region as a result of surgery of the pancreas and spleen and chemotherapy. The patient complained of pain, discomfort, and difficulties to walk and urinate. A clinical diagnosis of lymphedema of the penis and scrotum was reached. Treatment involved the continuous use of a cotton-polyester compression garment for the region together with thorough hygiene skin care. The swelling reduced significantly within a week to almost a normal aspect which was accompanied by clinical improvements of the symptoms. The reduction in penile edema allowed sexual rehabilitation even though erectile dysfunction required the use of a specific medication (sildenafil). In conclusion, simple and low-cost options can improve lymphedema of the penis and scrotum and allow sexual rehabilitation.

Key Words: Adaptation, compression, genitals, lymphedema

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Received: 08.06.2012, **Accepted:** 11.10.2012

INTRODUCTION

Lymphedema is defined as the abnormal accumulation of protein-rich fluid in soft tissues resulting from dysfunction of the lymphatic system, an imbalance between the formation of lymph and its absorption in the initial lymphatics.[1,2] Genitalia lymphedema is more common secondary to pelvic and abdominal malignancies or their therapy. A study on the evolution of 360 cases of surgical treatment for penile carcinoma found evolution to lymphedema in 16%.[3] Lymphedema of the penis and scrotum, regardless of etiology, is caused by a reduced lymphatic flow with subsequent swelling. The clinical evolution of the disease is characterized by extreme discomfort with difficulties in hygienic care, walking, sexual intercourse, and urination in the upright position.

The recommended clinical treatment of lymphedema is a combination of therapies including manual and mechanical lymph drainage, compression mechanisms (compression hosiery and bandages), myolymphokinetic exercises and activities, and hygienic care.[4]

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Access this article online	
Quick Response Code:	Website: www.urologyannals.com
	DOI: 10.4103/0974-7796.127025

CASE REPORT

The patient, a 58-year-old man, reported edema of the penile and scrotal region after surgery of the pancreas and spleen to remove a tumor 1 year and five months previously. The patient told that he was hospitalized for 46 days and was submitted to 16 sessions of chemotherapy. After discharge, he took bactrin for 30 days until returning for a follow-up consultation. He reported that the edema started in the pubic area, penis and scrotum, one year after surgery and that it did not reduce and caused pain and discomfort. The patient was initially attended in the Urology Department of Hospital de Base where he was referred to the Godoy Clinic in São José do Rio Preto for a vascular evaluation and treatment.

During the physical evaluation, the patient complained of pain, discomfort, and difficulty to walk during his work. He also reported that he had discomfort to urinate which deeply disturbed him. A clinical diagnosis of lymphedema of the penis and scrotum was reached.

Treatment involved the continuous use of a cotton-polyester compression garment, Figure 1 and 4, for the penis and scrotum region, together with thorough hygiene skin care. The swelling was reduced significantly and within one week, an almost normal size was achieved. However, the patient was counseled to continue to use the compression garment. The patient reported that the discomfort had improved, he was able to urinate normally, he could walk normally at work, and that hygienic skin care was easier.

He had not been sexually active since the onset of edema and after the swelling had been reduced, he suffered erectile dysfunction. This was treated with the administration of 50 mg Sildenafil.

DISCUSSION

This study provides a new option for compression therapy for the rehabilitation of secondary lymphedema of the scrotum and penis. The advantages of this treatment are its low cost (less than five dollars) and the simplicity with which the garment is put on and taken off.

The characteristic of the textile used to make this garment is its low elasticity across the width of the fabric (<50%). This allows a good fit and thus good compression and meets the characteristic of low elasticity which is recommended in the treatment of lymphedema. With the simplicity of the garment and its very low cost, large numbers of sufferers can be treated in poor populations, especially in areas, such as in India, where lymphedema is endemic. Its design, using suspenders and the ease with which the support can be put on and taken off at any time, makes this an excellent clinical treatment option.

Figure 1: Edema of the penis and scrotum

Figure 2: Adapted cotton-polyester compression support for the penis

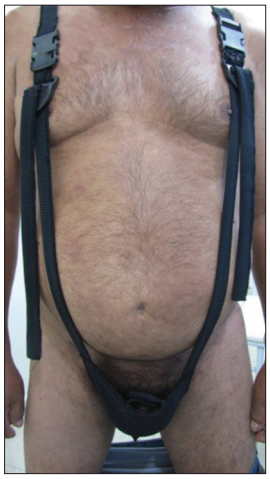

Figure 3: Adapted cotton-polyester compression support for the scrotum with harness

This option has been used in other patients where control of edema and improvement to walk were reported by these patients. This cotton-polyester textile has also been used to manufacture inelastic compression stockings and sleeves to treat lymphedema of the legs and arms. The compression hosiery is handmade and adapted to the size of each patient.

Figure 4: Reduction of the edema

Lymphedema is an incurable chronic disease. However, edema can be controlled with clinical treatment, thereby improving the quality of life of patients who can return to an economically productive life. In this case, the patient stated that treatment with the reduction in the swelling that had restricted him due to pain and difficulty walking improved his conditions to work and his quality of life.

Lymphedema can lead to sexual dysfunction due to edema and crippling psychological disorders for years. The clinical treatment resulting in a normal sized penis makes penile rehabilitation possible. However, in this case, the patient suffered from erectile dysfunction. Thus, the option was to use medications (sildenafil) that allowed the rehabilitation of the patient's sexual function.

CONCLUSION

The appropriate compression mechanism that reduced the lymphedema of the penis and scrotum and medication (sildenafil) allowed total sexual rehabilitation in this patient.

REFERENCES

1. Ji RC. Lymphatic endothelial cells, lymphedematous lymphangiogenesis, and molecular control of edema formation. Lymphat Res Biol 2008;6:123-37.
2. Godoy JM, Godoy MF, Braile DM, Testoni B, Sanches RG. Dynamic evaluation of working pressures with gorgurão sleeves used in the treatment of lymphedema of the arm. J Phlebo Lymphol 2008;1:5-7.
3. Rempelakos A, Bastas E, Lymperakis CH, Thanos A. Carcinoma of the penis: Experience from 360 cases. J Buon 2004;9:51-5.
4. de Godoy JM, de Godoy Mde F. Godoy and Godoy technique in the treatment of lymphedema for under-privileged populations. Int J Med Sci 2010;7:68-71.

How to cite this article: de Godoy JP, Facio FN, de Carvalho EM, Godoy MG. New compression mechanism in penile-scrotal lymphedema and sexual rehabilitation. Urol Ann 2014;6:88-90.

Source of Support: Nil, **Conflict of Interest:** None.