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**ASSESSMENT OF QUALITY OF LIFE IN COMPLEX TREATMENT OF  
SECONDARY LYMPHEDEMA ON THE LOWER LIMBS IN PATIENTS AFTER  
TOTAL CYSTECTOMY WITH LYMPHADENECTOMY**

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**Abstract**

Bladder cancer is ranked ninth place in the incidence of carcinoma in the world. Lower limb lymphedema is a complication following radical cystectomy and pelvic lymph node dissection (PLND) in bladder cancer, which is observed in between 5% to 10% of the operated patients, which degrades the quality of life. A prospective study was conducted to evaluate the effectiveness of complex decongestive therapy in patients with secondary lower limb lymphedema (SLLL) after PLND for bladder carcinoma. The study included 91 patients over 3 years after PLND, followed by chemotherapy and radiotherapy. The classification of the International Society of Lymphology is used to determine the degree of lymphedema. A complex decongestive therapy was performed in all patients after PLND. A general review of the patients was performed at the beginning of therapy, at the end of the first, third and sixth month, so that all complaints were counted and also the circumference of the two lower limbs was measured. At each stage of treatment, the quality of life was assessed using the EuroQol Group 5 Dimension Questionnaire (EQ-5D-5L) and a Visual Analogue Scale (VAS). On the third and sixth month of the complex decongestive therapy, there was a significant reduction of swelling, a significantly lower limb circumference, a lower degree of discomfort and/or pain in the limb, a higher level of motility, daily physical activity, and significantly higher quality of life measured by VAS and EuroQol Group 5 Dimension Questionnaire.

Lymphedema is a complex medical problem for both patients and doctors. A comprehensive strategy for treatment and prophylaxis is needed. Complex decongestive therapy in patients with secondary lymphedema after PLND with bladder carcinoma lowers lymph pressure and stimulates lymphatic drainage of the lower limbs, resulting in improved quality of life and social adaptation.

**Keywords: quality of life; secondary lymphedema; total cystectomy;**

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## References

1. Clark P.E., J. P. Stein, S.G. Groshen, et al. (2005) Radical cystectomy in the elderly. Comparison of clinical outcomes between younger and older patients. *Cancer*.;104(Issue 1):36-43
2. Stein J. P., Lieskovsky G, Cote R, et al. (2001) Radical cystectomy in the treatment of invasive bladder cancer: long-term results in 1054 patients. *J Clin Oncol.*;19:666-675
3. Kondo T., K. Tanabe. (2012) Role of lymphadenectomy in the management of urothelial carcinoma of the bladder and the upper urinary tract. *Int J of Urology*;19(Issue 8):710-721
4. Thurairaja R., U. Studer, F. Burkhard.(2009) Indications, extent and benefits of pelvic lymph node dissection for patients with bladder and prostate cancer. *The Oncologist*.;14(Issue 1):40-51
5. The diagnosis and treatment of peripheral lymphedema: 2016 consensus document of the International Society of Lymphology. (2016) *Lymphology*.;49:170-184
6. Wirt A, B. Cates. Upper & Lower extremity lymphedema. <https://www.srmconline.com/Uploads/Public/Documents/Division%201/Southside%20Regional%20Medical%20Center/Rehabilitation/Lymphedema%20Booklet.pdf>
7. National Lymphedema Network Advisory Committee. Position Statement of the National Lymphedema Network. Topic: Lymphedema Risk Reduction Practices. May 2012. [www.lymphnet.org/lymphedemaFAQs/positionPapers.htm](http://www.lymphnet.org/lymphedemaFAQs/positionPapers.htm)
8. Staneva M, Ts. Minchev.(2016) Evaluation of Phlebodia® therapy in patients with secondary upper limb lymphedema after mastectomy. *Angiology and vascular surgery*. XIX (3):21-27
9. Tsvetanov Ts, M Staneva, I. Karagiozov, L. Lozanov, K. Davidoff. (2017) Etiology of upper limb swelling - experience of a center. *Angiology and vascular surgery*; XX (1):31-38
10. Hayes SC, Johansson K, Stout NL, et al. (2012) Upper-body morbidity after breast cancer: incidence and evidence for evaluation, prevention, and management within a prospective surveillance model of care. *Cancer*.;118(8 Suppl):2237-2249.
11. Tyson M, D. Barocas. (2018) Quality of life after radical cystectomy. *Urologic clinics of North America*. 45(Issue 2):249-256
12. Asgary M, M. Safarinejad, N. Shakhssalim, et al. (2013) Quality of life after radical cystectomy for bladder cancer in men with an ileal conduit or continent urinary diversion: a comparative study. *Uro Ann.*; 5 (3):190-196