

Short commentary on Lymphedema after Treatment for Endometrial Cancer

Madelene Wedin^{1*}, Emma Lindqvist², Mats Fredrikson^{3,4} and Preben Kjølhede¹

¹Department of Obstetrics and Gynecology, Department of Clinical and Experimental Medicine, Linköping University, Linköping, Sweden

²Department of Obstetrics and Gynecology, the Highland Hospital, Eksjö, Sweden

³Forum Östergötland, Faculty of Medicine and Health Sciences, Linköping University, Linköping, Sweden

⁴Occupational and Environmental Medicine, Department of Experimental and Clinical Medicine, Faculty of Health Sciences, Linköping University, Linköping, Sweden

Lymphedema development after cancer treatment in women with endometrial cancer is a poorly explored complication and there is a substantial gap in the knowledge of this troublesome treatment-related adverse effect. Endometrial cancer is the most common gynecological cancer. The majority of the women diagnosed with endometrial cancer will be long-term survivors. The primary treatment of endometrial cancer most often comprises hysterectomy and bilateral salpingo-oophorectomy. Pelvic and para-aortic lymphadenectomy is recommended in prognostic high-risk groups of endometrial cancer. Lymphedema development is associated with lymphadenectomy.

This short commentary presents a summary of the recently published systematic review article entitled Lymphedema after Treatment for Endometrial Cancer—a review of prevalence and risk factors [1]. The review comprised the sub-items: Prevalence of lower limb lymphedema; Methods for determining the lower limb lymphedema diagnosis; Risk factors for lower limb lymphedema; Follow-up time and onset of symptoms of lower limb lymphedema; and -Impact on quality of life after surgical treatment of endometrial cancer including lymphadenectomy.

The review [1] is a descriptive meta-analysis of literature published on lymphedema development after surgery of endometrial cancer. The review reveals several essential weaknesses in the knowledge of lymphedema after treatment of endometrial cancer. So far, no randomized controlled trials with lymphedema as primary endpoint after treatment of endometrial cancer have been published. The reported prevalence of lymphedema after endometrial cancer treatment are mainly based on retrospective or cross-sectional studies. The reported prevalence vary between zero [2] and 50% [3]. Many of the retrospective studies do not include objective measurements of lymphedema, but report patient complain over swelling legs as lymphedema. Thus, the true prevalence of lower limb lymphedema after treatment of endometrial cancer remains to be established. Several methods to evaluate and categorize lymphedema have been presented but these are not consistently used in studies of endometrial cancer treatment. In addition, in most studies the base line measurement of lymphedema is lacking. The methods used in the studies include subjective scoring systems based on questionnaires, various clinical rating systems, directly or indirectly objective measurement of limb volume, bioimpedance measurements and various imaging techniques such as CT-scan, MRI, lymphoscintigraphy or fluorescent lymphography. Still there seems to be no universally used standardization for how to measure or report lymphedema in scientific contexts, which make comparison of studies difficult. Risk factors remains to be evaluated in correctly designed and sufficiently powered studies. However, lymphadenectomy per se [4-7], number of lymph nodes removed [6,8-16] and radiotherapy [3,7-11,14,17-20] seem to be established risk factor. Lymphedema onset may begin immediately after surgery or may be delayed for many years. Long-term follow-up is therefore necessary in order to establish reliable results on time of onset of lymphedema and to detect lymphedema in order to start early treatment. All published research seems unanimously

to conclude that lymphedema is an important factor with adverse effect on quality of life [7,11,21]. We found that much of the shortcomings are based on a fundamental lack of well-designed research and that there is a lack of standardization of terminology and methods of measuring lower limb lymphedema in research.

We conclude that there is a need for unanimous evidence-based international guidelines of terminology and methodology for diagnosis and treatment recommendations of lymphedema. We suggest and encourage the international scientific societies who deal with lymphedema to assemble and agree on international guidelines.

From a clinical point of view it is very important to emphasize that lymphedema is a chronic and progressive condition that, if untreated, can affect the quality of life adversely. It may bring years of suffering to the woman affected and established lymphedema is a serious condition that may be lethal. Today more women with gynecologic cancer become long-term survivors. This strongly increases the demand on the health care to provide adequate and reliable information concerning diagnosis, treatment and outcome including side effects and consequences, and to minimize the adverse impact of side effects of treatment on the health related quality of life.

References

1. Lindqvist E, Wedin M, Fredrikson M, Kjølhede P (2017) Lymphedema after treatment for endometrial cancer - A review of prevalence and risk factors. *Eur J Obstet Gynecol Reprod Biol* 211: 112-121.
2. Larson DM, Johnson K, Olson KA (1992) Pelvic and para-aortic lymphadenectomy for surgical staging of endometrial cancer: morbidity and mortality. *Obstet Gynecol*. 79: 998-1001.
3. Tanaka T, Ohki N, Kojima A, Maeno Y, Miyahara Y, et al. (2007) Radiotherapy negates the effect of retroperitoneal nonclosure for prevention of lymphedema of the legs following pelvic lymphadenectomy for gynecological malignancies: an analysis from a questionnaire survey. *Int J Gynecol Cancer*. 17: 460-464.
4. Beesley V, Janda M, Eakin E, Obermair A, Battistutta D (2007) Lymphedema after gynecological cancer treatment: prevalence, correlates, and supportive care needs. *Cancer*. 109: 2607-2614.
5. Hidaka T, Kato K, Yonezawa R, Shima T, Nakashima A, et al. (2007) Omission of lymphadenectomy is possible for low-risk corpus cancer. *Eur J Surg Oncol*. 33: 86-90.

*Corresponding author: Dr. Madelene Wedin, MD, Department of Obstetrics and Gynecology, University Hospital, S-58185 Linköping, Sweden, Tel: +46(0)10103 0000; Fax: +46(0)13148156; E-mail: Madelene.Wedin@regionostergotland.se

Received June 21, 2017; Accepted June 27, 2017; Published June 30, 2017

Citation: Wedin M, Lindqvist E, Fredrikson M, Kjølhede P (2017) Short commentary on Lymphedema after Treatment for Endometrial Cancer. *Gynecol Obstet (Sunnyvale)* 7: 442. doi: 10.4172/2161-0932.1000442

Copyright: © 2017 Wedin M, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

6. Abu-Rustum NR, Alektiar K, Iasonos A, Lev G, Sonoda Y, et al. (2006) The incidence of symptomatic lower-extremity lymphedema following treatment of uterine corpus malignancies: a 12-year experience at Memorial Sloan-Kettering Cancer Center. *Gynecol Oncol*. 103: 714-718.
7. Yost KJ, Chevillet AL, Al-Hilli MM, Mariani A, Barrette BA, et al. (2014) Lymphedema after surgery for endometrial cancer: prevalence, risk factors, and quality of life. *Obstet Gynecol*. 124: 307-315.
8. Biglia N, Librino A, Ottino MC, Panuccio E, Daniele A, et al. (2015) Lower limb lymphedema and neurological complications after lymphadenectomy for gynecological cancer. *Int J Gynecol Cancer*. 25: 521-525.
9. Todo Y, Yamazaki H, Takeshita S, Ohba Y, Sudo S, et al. (2015) Close relationship between removal of circumflex iliac nodes to distal external iliac nodes and postoperative lower-extremity lymphedema in uterine corpus malignant tumors. *Gynecol Oncol*. 139: 160-164.
10. Todo Y, Yamamoto R, Minobe S, Suzuki Y, Takeshi U, et al. (2010) Risk factors for postoperative lower-extremity lymphedema in endometrial cancer survivors who had treatment including lymphadenectomy. *Gynecol Oncol*. 119: 60-64.
11. Rowlands IJ, Beesley VL, Janda M, Hayes SC, Obermair A, et al. (2014) Quality of life of women with lower limb swelling or lymphedema 3-5 years following endometrial cancer. *Gynecol Oncol*. 133: 314-318.
12. Nunns D, Williamson K, Swaney L, Davy M (2000) The morbidity of surgery and adjuvant radiotherapy in the management of endometrial carcinoma. *Int J Gynecol Cancer* 10: 233-238.
13. Beesley VL, Rowlands IJ, Hayes SC, Janda M, O'Rourke P, et al. (2015) Incidence, risk factors and estimates of a woman's risk of developing secondary lower limb lymphedema and lymphedema-specific supportive care needs in women treated for endometrial cancer. *Gynecol Oncol* 136: 87-93.
14. Bae HS, Lim MC, Lee JS, Lee Y, Nam BH, et al. (2015) Postoperative lower extremity edema in patients with primary endometrial cancer. *Ann Surg Oncol*. 23: 186-195.
15. Mitra D, Catalano PJ, Cimbak N, Damato AL, Muto MG, et al. (2016) The risk of lymphedema after postoperative radiation therapy in endometrial cancer. *J Gynecol Oncol* 27: e4.
16. Mendivil AA, Rettenmaier MA, Abaid LN, Brown III JV, Micha JP, et al. (2016) Lower-extremity lymphedema following management for endometrial and cervical cancer. *Surg Oncol* 25: 200-204.
17. Ryan M, Stainton MC, Slaytor EK, Jaconelli C, Watts S, et al. (2003) Aetiology and prevalence of lower limb lymphoedema following treatment for gynaecological cancer. *Aust N Z J Obstet Gynaecol* 43: 148-151.
18. Tada H, Teramukai S, Fukushima M, Sasaki H (2009) Risk factors for lower limb lymphedema after lymph node dissection in patients with ovarian and uterine carcinoma. *BMC Cancer* 9: 47.
19. Rowlands IJ, Beesley VL, Janda M, Hayes SC, Obermair A, et al. (2014) Quality of life of women with lower limb swelling or lymphedema 3-5 years following endometrial cancer. *Gynecol Oncol* 133: 314-318.
20. Karabuga H, Gultekin M, Tulunay G, Yuce K, Ayhan A, et al. (2015) Assessing the quality of life in patients with endometrial cancer treated with adjuvant radiotherapy. *Int J Gynecol Cancer* 25: 1526-1533.
21. Oldenburg CS, Boll D, Nicolaije KA, Vos MC, Pijnenborg JM, et al. (2013) The relationship of body mass index with quality of life among endometrial cancer survivors: a study from the population-based PROFILES registry. *Gynecol Oncol* 129: 216-221.