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Multi-Layered Bandaging for Lower Limb Lymphedema in Vulva Cancer: A Case Report

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Abstract---Introduction: Gynaecological cancer growth represents more than one out of eight diseases. 12.5% of female malignancies are genital group: uterus (4.8%), ovary (3.7%), cervix (2.7%), and others including vulva (1.3%). Vulva Cancer is generally an uncommon infection of women but currently the occurrence is of 2-3 for every 100,000 females and a middle age of 65-70, vulvar malignancy has shown an expanding frequency (20% somewhere in the range of 1973 and 2000) with simultaneously diminishing middle age at beginning throughout recent many years. Method: Multi layered bandaging was applied for 22 hours every day over left lower limb followed by a session of active exercises of lower limb muscles. Materials used: Stockinette (inner lining), Padding made of foam, short stretch bandages using measurement scales: Circumference measurement at given level, Quality of life EORTC QLQ- C30, LEFS Lower extremity functional scale. Conclusion: Multi layered bandaging reflected great results where p value is drawn ($p = < 0.001$)

Keywords---decongestive therapy, gynaecological cancer, lymphedema, multi layered bandage.

Introduction

Gynaecological cancer represents more than one out of eight diseases emerging in women and Vulva cancer is not very common one. While hazard factors for the improvement of vulvar cancer incorporate smoking, immunosuppressive disease and constant skin illnesses of the vulva, these patterns can no doubt be credited to an expanding number of human papillomavirus (HPV) contaminations. Thusly,

more youthful and physically active females are impacted and the extent of careful treatment has been put to diminish careful radicality and dismalness yet ensure oncologic security for the patient. Other than surgical procedure, treatment of vulva cancer includes further therapy modalities like radiotherapy, chemotherapy, oncorehabilitation, particularly for privately progressed and metastatic disease. Notwithstanding, because of the low frequency of the illness randomised controlled preliminaries are deficient with regards to; sign measures for various treatment modalities there-front stay questionable with substituting levels of research. (21)

Different therapeutic modalities have been applied to upgrade fix paces of gynaecological cancer growth. As medical procedures are the backbone for most gynaecological cancers, numerous patients likewise go through radiation and additionally chemotherapy. The lymphatic framework is a typical site for blow back. Lymph stream from the lower appendages, vulva and pelvis through the lymphatics of the crotches and pelvis can be impeded by disease metastases or injury emerging from treatment modalities. Lymphoedema is a strange aggregation of interstitial liquid and testimony of fibro-fat tissue that outcomes from obstacle to lymph stream [1]. In women with genital plot malignant growth, the lymph stream in beforehand solid lymph channels can be weakened after therapy by direct interference of channels at organ analyzation and lymphadenectomy, and by aggravation incited by radiation and disease. Lymph hub extraction for arranging and treatment is a significant donor (2). Corpulence and other provocative conditions compound lymph balance.

Different reviewing plans are portrayed for lymphoedema dependent on the non-abrasiveness/solidness of skin and appendage volume change. Cellulitis and lymphangitis emerge with disturbing pace particularly when there is bullous or papillary change in the skin. Lymphoedema of the vulva might convey a high danger of contamination in any event when the skin is unblemished, and this is reflected in the St James' Hospital Gynaecology Cancer Care Team evaluating of lymphoedema. Studies on the effect of lymphoedema on personal satisfaction (QOL) dominantly connect with upper appendage lymphoedema in bosom malignant growth patients (3) and keeping in mind that actual manifestations might affect a singular's portability and in this way their capacity to perform exercises of day by day living, mental pain is additionally normal (4,5). Penha et al recommended that the adverse consequence of upper appendage lymphoedema on QOL of bosom disease patients might discredit the advantage of reconstructive medical procedure (6). Those investigations which included lower appendage lymphoedema are not restrictive to gynaecological diseases and high grade lymphoedema (7).

Case report

A 78-year-old woman with complaint of swelling in bilateral lower limb was referred to Lymphedema Clinic by a gynae oncologist with history of radial wide vulvectomy with bilateral groin node dissection. On observation, lymphedema was found with more swelling in the left lower limb. Treatment procedure and time duration was explained to the patient who agreed for the same. Point by point assessment was performed by a lymphedema therapist and intermittent

malignant growth and dynamic contamination were precluded by the gynae oncologist. Considering the patient's age factor and COVID-19 scenario, multi-layered bandaging was suggested as the only treatment for 22 hours per day along with active range of motion exercises for left lower limb muscles. QOL appraisal was taken after one month of treatment. The patient was also encouraged to use pressure garment for lower limbs after the treatment is over for maintenance. She was additionally encouraged to stop pressure garment and look for dire clinical appraisal if any sign of cellulitis. Personal satisfaction was surveyed involving the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire–Core Questionnaire (EORTC QLQ-C30 variant 3.0). This questionnaire is a 30 self-report apparatus created to survey QOL in malignant growth patients (Supplementary Material). It contains multi-thing and single-thing measures including five practical scales (physical, social, job, intellectual and enthusiastic), three side effect scales (weakness, agony, sickness and regurgitating), six single thing scales (dyspnoea, dozing unsettling influences, craving misfortune, stoppage, looseness of the bowels and monetary effect) and a worldwide wellbeing status/QOL scale.¹ Reaction decisions range from 1 (not in any way) to 4 (without question), except for the two things of the worldwide QOL scale, where reactions range from 1 (exceptionally poor) to 7 (brilliant).

The EORTC Quality of Life Group has fostered various strengthening illness and therapy explicit modules including gynaecological disease explicit modules which might be utilized related to the EORTC QLQ-C30. Albeit a portion of these incorporate inquiries connected with lymphoedema for example cervical disease module (EORTC QLQ-CX24), there is no devoted EORTC gynaecological cancer growth related lymphoedema module. As this was a blended gynaecological disease associate, a strengthening lower appendage lymphoedema survey was produced. It comprised of 6 things and included useful and manifestation gauges specifically self-perception, lymphoedema, shivering and deadness and muscle and joint torment. Questions and reaction decisions reflected those utilized in the EORTC QLQ-C30.

Results

Table 1
Showing the details of patient with reduce swelling/ circumference of the left lower limb

LEVEL OF LIMB	BASE LINE	AFTER TWO WEEKS	AFTER ONE MONTH
MID FOOT	24.4 CM	24.2 CM	24 CM
AT MALLEOLUS	28 CM	27 CM	26 CM
LEVEL			
10CM ABOVE	28.2 CM	27 CM	25.2 CM
MEDIAL			
MALLEOLUS			
10 CM BELOW	34.5 CM	34.2 CM	34 CM
INFERIOR BORDER			
OF PATELLA			

10 CM ABOVE UPPER BORDER OF PATELLA	46.3 CM	44 CM	43.5 CM
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An examination of QOL at standard and no less than about two months subsequent to initiating the treatment. The mean worldwide wellbeing score of members following the treatment was 20 ± 8.31 , altogether higher than pre-treatment ($p < 0.01$). Estimated with physical, wellbeing all improved essentially with the treatment. she complained with agony and weakness at standard; but improved altogether with treatment ($p < 0.01$).

Pictures after removing Multilayer Bandage (Skin folds and creases are clearly visible):



Figure 1. Pictures after removing multilayer bandage

Discussion

Lymphedema is a typical unfavourable result of gynaecological cancer treatment that can advance to being unchangeable at different rates. These patients are in danger of considerable long haul wellbeing hindrance and repeating diseases. An expected 1451 patients a year are conceded to medical clinics with cellulitis connected with lymphoedema. Cost to the side, episodes of cellulitis can be hazardous. Patients with sclerotic lymphoedema are suggested manual lymph seepage and pressure dressing and complete, complex actual decongestive treatment is presented by particular facilities abroad. It joins manual lymph seepage with appendage pressure utilizing complex cushioning materials and short-stretch swathes applied drearily. Careful intercessions plan to re-establish lymph stream and extract the overabundance subcutaneous fibro-fat tissue (8). Lymph venous detour and lymph hub microsurgical transplantation have been accounted for to considerably diminish episodes of cellulitis principally or only in the upper appendages (9). Its worth in females who have gone through illumination to crotches or pelvis still needs to be set up so careful treatment of lower appendage lymphoedema stays exploratory. Cold laser treatment, a photochemical treatment that might diminish fibrosis, invigorate macrophages and advance lymph angiogenesis has been depicted in little preliminaries in upper appendage lymphoedema with clashing outcomes.

Likewise, and to some extent because of actual deformation and distortion, lower limb lymphedema hinders mental wellbeing and QOL. Given the impediments of pressure treatments and absence of admittance to either finish decongestive treatment or medical procedure in our wellbeing administration, we considered pneumatic compression devices may be advantageous in females with serious lymphedema following gynaecological cancer treatment. This is a report of the personal satisfaction results of the primary accomplice of 78 year old female so treated who complained of lymphedema due to vulva Cancer and was undergoing medical treatment besides opted for physiotherapy for managing her lymphedema which is common in gynecology cancers patients.

That danger of lymphedema is one of the impetuses for diminishing lymphatic disturbance through sentinel lymph hub planning and investigation. (10,11,12) Notwithstanding the EORTC QLQ-C30, an advantageous device was created from EORTC QLQ of gynaecological site explicit disease locales and directed with an end goal to catch the indications firmly connected with lower appendage lymphedema in this persistent associate. Various lymphedema surveys exist (13,14,15) , muscle and joint torment and paraesthesia, indications regularly, likewise scored profoundly. There were qualities and impediments to this review. A definite separated QOL survey was utilized to completely evaluate QOL at benchmark in patients with serious lymphedema and in the wake of beginning domiciliary treatment with pneumatic compression device (16,17,18,19). Our attention was on QOL. The standard EORTC QLQ-C30 was enhanced by extra inquiries, which were all drawn from other EORTC gynaecological malignant growth explicit modules.

Conclusion

In the present case report we conclude, multilayered bandaging showed great rescue for a patient battling with lymphedema following vulva cancer. It is a low cost, effective and easily affordable to a individual and does wonders in reducing the lymphedema. In addition, in the current pandemic COVID-19 situation multilayer bandaging alone can be a survivor for lymphedema followed by active exercises, under the guidance of a lymphedema therapist.

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