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Management of Breast Cancer Related Lymphoedema

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Lymphoedema followed by mastectomy due to breast cancer treatment is the most morbid condition that may affect the survival of the patients (1). The incidence of breast cancer related lymphoedema is about 20% of the breast cancer survivor population. Furthermore, it is known that the risk of breast cancer related lymphoedema is higher after an axillary lymph node dissection, chemotherapy and radiotherapy than a sentinel node biopsy (2). Occasionally, it is a rare event almost occurs beyond years (3).

Lymphedema management includes reducing size of edema, prevention of situation worsening and attenuation of infection risk in this population. It is prudent that management perform by expert clinician (4). However, none of treatment method can completely manage the problem (1). Currently, variety of treatment methods such as physical techniques, surgical approaches, low level laser therapy (LLLT), deep oscillation, sympathetic ganglion block, and acupuncture are available. Conventional management is performed as combination therapy by skin care (applying moisturizers), massage, special bandaging, physical exercise, and compression referred to comprehensive decongestive therapy which has popularity in the west countries. It is more efficient in combination with self-management (1).

Supportive treatment methods usually apply to intensive and maintenance phases and depend on severity of lymphoedema. In one randomized clinical trial, using of advanced pneumatic compression (flexible system) was more efficient than standard type that applied in 12-week course in lowering ion of lymphoedema (5). During maintenance phase, elastic sleeve and low stretch bandage are required after heavy decongestive physiotherapy for maintenance stability of lymphoedema volume (6).

At the palliative care (PC), physiotherapy plays a major role in the supporting and treating of patients who are suffering as pain and other distressing symptoms, such as respiratory symptoms due to lymphoedema. One of these treatments is manual lymphatic drainage in PC patients. Patients usually after manually drainage by physiotherapist will experience clinical improvement in severity of symptoms including pain and volume of lymphedema (7). Among the analgesic techniques, cervical stellate ganglion block is effective approach to reduce oedema volume and thickness of arm with lymphedema, and improvement of patient's satisfaction (8). Other methods includes LLLT is a useful treatment method of breast cancer-related lymphedema that serially influences on multiple fibrotic regions (9). De Valois et al reported that acupuncture/moxibustion combination is acceptable method as adjunct for improvement of life quality (10). Tidhar and Katz-Leurer found that aqua lymphatic therapy (ALT) for 3 months is a novel and a safe method with early effects on mild to moderate lymphoedema. They suggested that further studies are needed to evaluate the effect of ALT on organ volume reduction (11). In addition, it has been shown the combination of low-intensity and extremely low-frequency electrostatic fields (deep oscillation) and manual lymph drainage are methods significantly effective to resolve pain and to reduce edema in patients with secondary breast lymphoedema compared with manual lymphatic drainage alone (12).

Some of investigations have reported subcutaneous drainage can be considered a useful option for the relief of distressing symptoms caused by the oedema in patients with advanced cancer (13). Several beneficial surgery techniques also are applied for lymphedema management; include physiological methods and reductive techniques (3). Among of physiologic methods, flap interposition, lymph transfer and lymphatic bypass are performed to reduce lymphedema as restoring lymphatic drainage. It can be rely on liposuction (reductive technique) to remove fibrofatty tissue responsible to lymph fluid stasis. Now, microsurgical variation of lymph bypass is a popular approach that entrapped lymph node in edematosis organ is redirected to another lymphatic base (3).

In summary, education and training of patients are necessary elements for providing patient care. However, correct management needs to multidisciplinary approach for reduction of lymphedema implications on quality of life in breast cancer population.

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