

# Role and Importance of Integrating Physiotherapy in the Management of Patients with Gynaecological Cancers

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**Dear Sir,**

Cancers of the female genital tract are the 5<sup>th</sup> most common cause of cancer worldwide, after cancers of the lung, breast, colon, and prostate [1]. Cancer of the uterine cervix is the 3<sup>rd</sup> most common cause of cancer in women worldwide; around half a million patients are diagnosed with the cancer annually, with a huge geographic variation. In some countries, cancer of the uterine cervix is the most common cancer. Cancer of the uterus is the 6<sup>th</sup> and cancer of the ovary is the 8<sup>th</sup> most common cause of cancer worldwide in women. Management of these cancers require integrated care. Usually, gynaecological, medical, and radiation oncologists are at the forefront of management. However, multidisciplinary management requires several other healthcare providers, such as geneticists and counsellors, clinical nurse specialists, psychiatrists, palliative care specialists, clinical pharmacists, clinical nutritionists, and physiotherapists.

The role of ancillary healthcare providers is considered essential in integrated cancer centers, however, in developing countries like Pakistan, the role of these services in integrated management of cancers is either non-existent or only beginning to be realized. We write to highlight the role and importance of integrating physiotherapy in the overall management of patients with gynaecological cancers.

Physiotherapy focuses on movement science, helping individuals to maintain and maximize their physical strength, range of motion, and functional and overall well-being. In addition to the very important role of physiotherapy in the survivorship program, aimed at improving the quality of life of gynaecological cancer survivors, several interventions have been proven to be effective in addressing complications arising from gynaecological cancer, or its treatment.

Physiotherapists play a critical role in improving the knowledge of patients about symptom management and engaging patients as partners in their care [2]. Furthermore, several interventions improve physical function, and the quality of life of cancer patients and survivors during and after the treatment, making the

patients more independent to carry out activities of daily living [3].

Within a few days of diagnosis of cancer, the patient should be seen by a physiotherapist, who will perform a detailed physical examination and make a subjective assessment to see if the patient needs physical therapy interventions straightaway. Patients with gynaecological cancers may present with symptoms, or develop complications, such as pain, postural abnormalities, functional limitations, urinary incontinence, lower limb lymphoedema, peripheral neuropathy, chest symptoms, and post-operative complications. Many of these symptoms and complications are amenable to interventions by physiotherapists. Additionally, obesity being overweight at the time of diagnosis, or weight gain after treatment needs intervention, and this can also be provided by physiotherapists.

For patients presenting with pain, postural abnormalities, and functional limitations, the physiotherapist will assess pain intensity, severity, duration, and other symptoms, and make an objective assessment of posture, muscle strength, range of motion over the joints, functional activity, and gait. Interventions include soft tissue releasing, muscle strengthening, muscle stretching, balance and coordination training, vestibular rehabilitation, joint mobilization, postural correction, or dry needling. These interventions will help the patient to increase the range of motion over the joints, reduce pain, increase mobility; maximising functional activity, and enhance the quality of life.

Urinary incontinence is defined as involuntary leakage of urine, especially during coughing bouts, and affects a patient's health and impairs quality of life. The prevalence of urinary incontinence in patients with gynaecological cancers is underestimated, as patients do not inform healthcare providers [4]. The physiotherapist evaluates the pelvic floor muscle strength manually or *via* the electrical device, and according to the level of weakness, interventions including patient education, electrical muscle stimulation, vaginal cones, and strengthening exercises for the pelvic floor and the core are administered.

Some patients may present with lymphoedema, especially after surgery. Lymphoedema results from the accumulation of protein-rich lymph fluid due to disruption

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of pelvic drainage after surgery. The condition may be associated with pain, feeling of heaviness, and difficulty in walking. Complex Decongestive Therapy (CDT) is a relatively recent and widely used intervention for the management of lymphoedema. It is a combination of manual drainage, pneumatic compression using a machine, bandage, and exercises. Early prevention with CDT using rehabilitation exercises is effective in reducing the incidence of lower limb lymphoedema, reducing cancer-related fatigue, and improving patients' quality of life [5].

Physiotherapy plays a pivotal role in the prevention of complications and management of symptoms after surgery for gynaecological cancers, including the prevention of deep vein thrombosis, perioperative pain management, respiratory complications, bowel obstruction, early mobility, and quality of life. Early mobilization after surgery is highly recommended, as it increases patient independence and produces positive psychological effects. Some patients, especially after surgery present with reduced chest expansion, abnormal breathing patterns, and reduced cough strength. For such patients, interventions include exercises that regulate breathing patterns, maximize chest expansion, clear the sputum, strengthen the muscles, and maintain clear airways [6].

Patients with gynaecological cancers who have concomitant diabetes mellitus, nutritional deficiencies, or are overweight, may experience neurological dysfunctions. Additionally, some drugs cause peripheral nerve neuropathy, such as paclitaxel, cisplatin, carboplatin, and vinorelbine. Abnormal sensation may be felt in the limbs while touching an object or even at rest, including numbness, burning sensation, or stabbing pain. Motor nerve involvement may manifest as weakness of muscles responsible for limb movement. These symptoms can be managed by a variety of physiotherapy interventions, including proprioceptive neuromuscular facilitation, resistance training, strengthening exercises, nerve tension, nerve gliding, and spine, and limb joint mobilization. These interventions are administered according to the severity and chronicity of symptoms. Physiotherapy sessions are usually commenced in the hospital setting and continued at home. In addition, the occupational therapist and the podiatrist provide education to the patient regarding limb safety, for example, observing the limbs frequently, to make sure the limbs are in good condition.

Finally, around 75% of women with uterine cancer are overweight (body mass index > 25kg/m<sup>2</sup>, or obese (BMI > 30kg/m<sup>2</sup>) at the time of diagnosis. Obesity is a risk factor for uterine cancer. More importantly, patients who are successfully treated for uterine or ovarian cancer are at an increased risk of cancer recurrence if they gain weight [7]. Hence, weight management is important, is a multi-disciplinary work, and requires cooperation from the patient as well as the health care professionals including physicians, dietitians, psychologists, and the

physiotherapist. Physiotherapy targets the physical part and includes increasing the level of physical activity safely and within individuals' tolerance, keeping in view their medical condition. It starts by evaluating of patient's level of function, exercise tolerance, cardio-vascular fitness, muscle power, and screening for contra-indications. Ensuring safety is crucial. Physiotherapy intervention is planned according to the patient's specific condition and needs, and the treatment plan starts under the close supervision of a physiotherapist who assesses safety and body response to intervention and then continues at home. Interventions include behavioral modification, aerobic training, resistance training, strengthening exercises, and high-intensity training.

In summary, physiotherapy interventions can improve the quality of life of patients and survivors of gynaecological cancers throughout the cancer treatment journey. These could be delivered as part of the holistic care to the patient and should address individualized needs aiming to treat the symptoms and complications of treatment, increase tolerance to treatment, enhance the quality of life, and reduce the chances of cancer recurrence. Physiotherapists should be part of the team delivering integrated care to patients with gynaecological cancers and should participate and contribute to the tumour boards.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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