EDITORIAL

The Role of Physical Therapy in Orthopedic Medicine

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Physical therapy is integral part of the health care system today nationally and internationally but most part of the world it is not yet a developed profession but a cluster of some modalities and manual skills. Internationally physical therapy is now considered to be independent profession declared by the world confederation for physical therapy (WCPT) and WHO. [1] In most of the developed countries today patients have fully or partially direct access to physical therapy services. It is also very important to know the education level or entry level degree program in physical therapy, which is a 17 years of schooling approved by HE and the curriculum comprises of extensively basic science, medical and clinical sciences so the physical therapist today has the capabilities to assess and treat movement dysfunctions either due to diseases, injuries, ageing process or natural disaster.[2]

The efficacy of physical therapy interventions has been proved in many areas with limitations but in orthopedic Medicine the role of physical therapy is very crucial. In physical therapy the main focus is on biomechanics and ergonomics, e.g. how different movements can be initiated by skeletal muscles and bones around different axis and planes while the stability and coordination will be ensured because any loss of movement or deviation from its physiological axis will result in the loss of functional activities.

In orthopedic conditions; if it is related to joint mobility, fracture or muscular problems the role of physical therapy intervention is very important. If the problem is of a physical nature only physical intervention can be helpful'e.g. in total knee or hip orthoplasty the patient can only take advantage of the artificial joint when he/she get proper physical therapy intervention before and after surgery because the surgeon will replace the joint but it is the physical therapist job to make it functional, so the success of all orthopedic surgeries depends on the good physical therapy care.

A physical therapist has been trained to mobilize the joints without causing any inflammatory reaction.e.g in frozen shoulder(adhesive capsulitis) most of the time the patient has been advised to do some specific exercise to get range but those exercise could make the shoulder worst because breaking the adhesions by stretching can cause the inflammatory reaction again and again which result in new scar formation which further restrict the mobility of the joint but when it is mobilized by the physical therapist manually most of the time it does not cause any inflammatory reaction because he/she applies accurately determined and specifically directed force towords the joint in order to improve mobility. He/she is also aware of the concave & convex role of mobilization, biomechanics, and the resting position of the joint. So after few sessions the patient gains mobility in the joint and able to perform functional activities.[3]

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Skeletal muscle loses strength in traumatic injuries or surgeries, which is most of the times resulting in functional loss, so strengthening of weak muscle is not possible without physical therapy interventions. Physical therapists are trained to write exercise prescription for individual muscle endurance and strength and also able to implement the treatment plan.Muscoloskletel pain is another major problem in orthopedic medicine which can cause severely functional loss in the human body,e.g; back pain or any joint pain due to degenerative changes result in muscle weakness and decreased range of motion which could be the main reason for functional loss, again that can be restored with the help of physical therapy intervention by eliminating the pain with manual therapy. According to Lederman "Manual Therapy, in its many forms, is probably the major method, after medication, for the relief of musculoskeletal pain". (Lederman E. Second edition-2005)

Physical therapy intervention can also play a significant role in the correction of musculoskeletal deformities through stretching and strengthening and by the use of corrective devices of different kinds.e.g; scoliosis can be corrected through stretching of the muscles on the concavity and strengthening on the convexity, also Thoraco-Lumbo-Sacral Orthosis (TLSO) can be helpful for the correction of the spine. Torticollis, also known as wry neck is any other condition can be treated successfully with physical therapy intervention. After fracture immobilization cause significant decrease in range of motion and also causes disuse muscle atrophy which ultimately cause severe loss of function. This problem can be treated to restore function only with physical therapy intervention.[4]

So there is a very close relationship between orthopedic Medicine and physical therapy. The physical therapist should be part of the orthopedic team. In most of orthopedic cases physical therapy intervention is necessary for the successful outcome and when the physical therapy intervention is ignored in many cases very serious complications result which cause serious problems to the patients. So it is suggested that in all orthopedic unit this protocol has to be in place that every patient in the orthopedic unit has to be evaluated by physical therapists to avoid complications of any procedure or surgeries and the maximum function and mobility of the patient has to be resorted. It is evident from the literature that early mobilization can decrease hospital stay and also decreases the chance of complications to occur after any procedure or surgery.[5]

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