Awareness about the Role of Physical Therapy among Medical Practitioners Working in Burn Units

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ABSTRACT:

Background: Physical therapy is now a key component of health sciences across the world and it has many developed sub-specialties. The wound care is one of them, and physical therapists working in wound care always play a key role in patient management.

Objective: This survey was conducted to find out the awareness about the role of physical therapy among medical practitioners working in burn units.

Methodology: A sample of 50 surgeons treating burn patients was selected from August 20, 2012 to November 20, 2012. A structured questionnaire was used to collect data about the opinion of surgeons. The attitude of the surgeons was also observed during the study.

Results: Majority 92% of the surgeons have at least some knowledge about the role of physical therapy through literature. 74% refer their patients for physical therapy. 78% of the surgeon's state that negative outcomes are either due to improperly performed physical therapy or the physical therapist's incompetence.

Conclusion: It is concluded that the surgeons are aware and encouraging in their attitude towards the physical therapy. The therapists who are better qualified show much better results thus more qualified professionals especially DPT who have knowledge about basic sciences equivalent to those of the graduate medical practitioners should be preferred who can work as a member of multidisciplinary team for the rehabilitation of the burn patients.

Key words: Burn Rehabilitation, Awareness, Physical Therapy (JRCRS 2013; 1(1):13-16)

INTRODUCTION:

Burn injuries are mostly caused by the transfer of heat between an energy source and the body which results in wound formation1-2. Burn injuries can be classified in many different methods based on the source of heat energy, total body surface area involved, depth of burns etc3-4. There are very few hospitals that have a proper burn centre for the critical Burn injuries are mostly caused by the transfer of heat between an energy source and the body which results in wound formation1-2. Burn injuries can be classified in many different methods based on the source of heat energy, total body surface area involved, depth of burns etc3-4. There are very few hospitals that have a proper burn centre for the critical patients with massive areas of burns. During the data collection process it was observed that the hospitals providing burn treatments are quite limited in number. There are a handful number of burn centers in Punjab; two in Rawalpindi and Islamabad and others in Multan and Kharian. Other than the hospitals which have the optimum equipment and staff for treating all complications of burns (which are proper burn centers), the patients are generally treated at all hospitals where special units that are associated with the surgery ward are present. With the ever increasing new advancements in the medical field like silicone gel therapy, splints, pressure garment and especially the bandages specifically designed for burn patients the care and treatment of these patients has improved immensely5-6. But a

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problem of great significance is that financial resources are actually the main determinant of the quality of treatment a patient receives. This study is an attempt to show all the short comings that are hindering the provision of proper treatment and care to the burn patients. It will bring light to all the reasons due to which physical therapy despite its evidence based impact is not being provided to the patients.

MATERIALS AND METHODS :

An observational cross sectional study was conducted. The study was completed in 6 months duration. A sample size of 50 doctors treating the burn patients was selected for the data collection to get an overview of the general opinion of their population. The data was collected from private and public sectors, many cities and both young and senior experienced doctors so that the whole population would be represented equally. Non-Probability Convenient Sampling technique was used for data collection. Data collection tool was a structured questionnaire. The questionnaire included 11 questions and a brief bio-data of the surgeons including their qualification job designation and working hospital. Questions regarding the number of referrals made to physical therapists, the outcomes obtained from these referrals and the reasons in case of negative results were asked. Also data about the cost effectiveness and knowledge of the medical doctor regarding the role of physical therapy was collected. Several questionnaires were filled in person while others were sent and received through mail, internet and telephone.

RESULTS

In this study a sample size of 50 doctors working in burn units, burn centers or with experience in this field was used to study some aspects of burn care provided to the patients in Pakistan. Through the data obtained from the questionnaires, following results can be enlisted about the knowledge and attitude of medical doctors and results where physical therapy is included in the treatment protocol of burn care and also the factors affecting the outcomes obtained from referrals to the physical therapists.

Out of the 50 surgeons from whom data was collected, 46 (92%) have gone through at least some literature that signifies the role of physical therapy in burn patients' care.

All of the doctors included in the research supported the fact that physical therapy should be available at all hospitals. The positive attitude of the surgeons towards physical therapy can be appreciated by the vast number of patients that they refer for physical therapy. 37 out of 50 (74%) of the surgeons mentioned that they refer either all or majority of their cases for physical therapy. While only 13 stated that they refer only few or none. The outcomes of these referrals have also been mostly positive. 32 surgeons state that they have obtained better results while 15 mentioned that they were sometimes better sometimes worst. And only a 2 mentioned having achieved no difference. When asked about where the surgeons consider the role of physical therapy was important 39 (78%) agreed that physical therapy should be provided throughout the initial treatment and rehabilitation process rather than only for some specific conditions or complications while 11 (22%) mentioned that it should be administered for specific cases like contracture formation, positioning, burns involving limbs or orthotic prescription. There is a large magnitude of literature full of evidence emphasizing the role of physical therapy in the rehabilitation of burn patients. There are many researches that emphasize the importance of physical therapy in the treatment of these patients.

Burn patients are prone to reduced joint motion, decreased muscle mass and deformities. To avoid these complications techniques like proper positioning, splinting, range of motion exercises, massage for pain and scar management, early ambulation are incorporated early in the patient's rehabilitation plan to achieve optimum results and the effectiveness of all these interventions has been reported in studies10.

According to a study, as the physical fitness is always affected in all the burn patients and exercise programs can restore strength, endurance and better range of motion and make the patient as fit as the prior to the injuries7. It has also been evidenced to increase lean mass and strength in these patients9. Exercise along with growth hormone therapy has been proposed as a treatment method and tested by a study to improve lean mass especially in children with burn injuries 8.

Other than the exercises physical therapy may be effective in the treatment and prevention of scar formation with other modalities like pressure garment therapy. Although research is ongoing in this area but beneficial results have been obtained so far with the application of pressure garments 11.

Researches also prove benefits of massage therapy as it reduces the discomfort especially in children thus facilitating treatment and dressing change procedures12. Massage not only reduces the anxiety levels but the patients also show decreased pain on the McGill Pain Questionnaire, Present Pain Intensity scale, and Visual Analogue Scale. For example, the debridement sessions are reported to be less painful with adjunct massage therapy 13.

There are also case reports showing that physical therapy rehab is of utmost importance in patients with hand burns. Proper positioning, splinting and range of motion exercises are essential as for the patient to achieve functional independence proper rehabilitation of the hand is of utmost importance. Where limbs, especially hands, are concerned, the proper rehabilitation is crucial for any patient to achieve the level of independence in functional activities that he or she enjoyed before the injury. Hand functions like pinch grip, power grip and full hand motion must be restored as these are necessary to achieve the pre-burn status of function in the patients 14.

Hands in specific and upper extremity generally must be restored to normal function because if hand is working properly but patient has developed contractures at elbow and shoulder, the patient will still be unable to carry out the ADLs properly 15-16.

Rehabilitation of upper extremity especially hand is given so much importance because it is essential for a patient to return to work. Physical therapy protocol done properly will enable the patient to continue his previous job to earn a living. The therapist understands and will make sure that the patient is physically fit enough to work as prior to the injury. For this the therapist will explain the specific job modification or safety measures that the patient will follow 29.

All of the aforementioned studies show that there is ample role of physical therapy in burn care. It is not an adjunct to the treatment but a very essential component of the whole treatment plan right from the time of assessment to the post hospitalization rehabilitation phase. Rehabilitation for upper extremity has been especially mentioned because the patient's livelihood and all ADLs depend on its functions. The benefits of massage, exercise and physical activity to improve patient condition and reduce complications are also quoted from evidence thus it is the need of the hour to make physical therapy a permanent part of the patient's plan of care. The research has been conducted to find out and improve this very aspect of our health care system.

CONCLUSION:

Physical therapy improves the outcomes if included in the treatment plan of burn injuries. The medical practitioners treating the burn injuries are not only aware but show a positive attitude towards the importance of the inculcation of therapeutic maneuvers for proper care of the burn patients. They agree that physical therapy is essential for all the patients and should be provided throughout the initial treatment and the whole rehabilitation process.

Ample amount of evidence exists that shows that the procedures used in physical therapy are indeed very effective in treating the patients. Emphasizing the role of physical therapy in burn care will thus improve the quality of care provided to the patient.

The idea that needs to be promoted as much as possible is that of a multidisciplinary approach in treating the patient. All the decisions regarding patient care right from the initial assessment, immediate emergency care, rehabilitation and follow up after discharge should be made by a team with the surgeon, physical therapist, care givers and an orthotist if needed as members.

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