

## Effectiveness of Physiotherapy in Hand Dysfunction of Leukemia Patients with Chronic Musculoskeletal Graft versus Host Disease Post Bone Marrow Transplant

**Authors :** Mohua Chatterjee, Rajib De

**Abstract :** Introduction: Bone Marrow Transplant (BMT) is often performed to treat patients with various types of leukemia. A majority of these patients develop complications like chronic musculoskeletal GVHD post-BMT where patients get scleroderma, pain and restricted range of motion of joints of hand. If not treated early, it may cause permanent deformity of hand. This study was done to find the effectiveness of physiotherapy in hand dysfunction caused due to chronic musculoskeletal GVHD of leukemia patients after BMT. Methodology: 23 patients diagnosed with leukemia and having musculoskeletal GVHD were treated with a set of exercises including active exercises and stretching. The outcome was measured by Cochin Hand Function Scale (CHFS) at baseline and after four weeks of intervention. Results: Two patients were not able to carry out exercises beyond two weeks due to relapse of disease and one patient defaulted. It was found that all the patients who received physiotherapy had significant improvement in hand function. Mean CHFS decreased from 63.67 to 27.43 (P value < 0.001) indicating improvement in hand function after four weeks of physiotherapy. Conclusion: Early intervention of physiotherapy is effective in reducing hand dysfunction of leukemia patients with musculoskeletal GVHD post-BMT.

**Keywords :** bone marrow transplant, hand dysfunction, leukemia, musculoskeletal graft versus host disease, physiotherapy

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