

**APPLICATION OF RUBBER BALL GRASP THERAPY INTERVENTION TO
INCREASE MUSCLE STRENGTH IN CASES OF NON HEMORRHAGIC
STROKE AT LAVALETTE HOSPITAL**

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ABSTRACT

Non-hemorrhagic stroke often results in upper extremity hemiparesis, leading to impaired daily functioning. Rubber ball grasp therapy is a non-pharmacological intervention believed to stimulate muscle contraction and improve muscle strength in post-stroke patients. This case study aimed to examine the implementation of rubber ball grasp therapy in enhancing muscle strength in a patient with impaired physical mobility due to non-hemorrhagic stroke at Lavalette Hospital. A descriptive case study design was employed using the nursing care process approach. The subject was a 65-year-old male diagnosed with acute CVA infarction. The intervention was administered over five days, twice daily, for 10–15 minutes each session on the affected upper extremity using a rubber ball. Muscle strength was evaluated before and after the intervention using the Manual Muscle Testing (MMT) scale (0–5). Results showed an improvement in right-hand muscle strength from a score of 2 to 4, a reduction in muscle weakness, and better physical mobility. The therapy's mechanism involves repeated stimulation of neuromuscular activity, increased blood circulation, and strengthening of muscle fibers. Rubber ball grasp therapy proved effective in enhancing muscle strength and is recommended as a simple, supportive intervention in nursing care for post-stroke patients with impaired mobility.

Keywords: *Rubber ball grasping therapy, Muscle strength, Physical mobility impairment, Non-hemorrhagic stroke.*