



Patients in the manipulated group were put on an intermittent traction machine with 20 degrees flexion of the neck and using rotatory manipulation to the cervical spine during a pull of 25 kilograms. Patients were manipulated twice weekly for 6 sessions (3 weeks).

In the manipulated group, results showed mark reduction of pain (5 levels in visual analogue scale). Degrees of active ROM of neck in all directions improved significantly ( $p < 0.001$ ) before and after the first treatments and after the last treatments: flexion and extension =  $108.13 \pm 14.48$  /  $114.81 \pm 12.62$  /  $125.40 \pm 10.04$  ; lateral flexion to the left and right =  $67.86 \pm 13.72$  /  $73.77 \pm 10.18$  /  $80.50 \pm 10.37$  ; rotation to the left and right =  $143.13 \pm 13.88$  /  $156.86 \pm 10.34$  /  $168.59 \pm 4.29$ . Maximal isometric contraction of flexors, extensors and both lateral flexors of the cervical spine were also significantly increased from the beginning ( $p < 0.01$ ):  $3.92 \pm 1.79$  /  $4.74 \pm 1.80$  kilograms in flexors,  $6.97 \pm 2.67$  /  $8.28 \pm 2.05$  kilograms in extensors,  $4.28 \pm 1.52$  /  $5.38 \pm 1.35$  kilograms in the left lateral flexors and  $4.31 \pm 1.51$  /  $5.27 \pm 1.25$  kilograms in the right lateral flexors. About 5 sessions (twice/week) should improve the conditions. No significant change occurred in the controlled group.