



CERVICAL SPINE MOBILITY IN INDIVIDUALS WITH MIGRAINE: A CROSS-SECTIONAL STUDY

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Objective

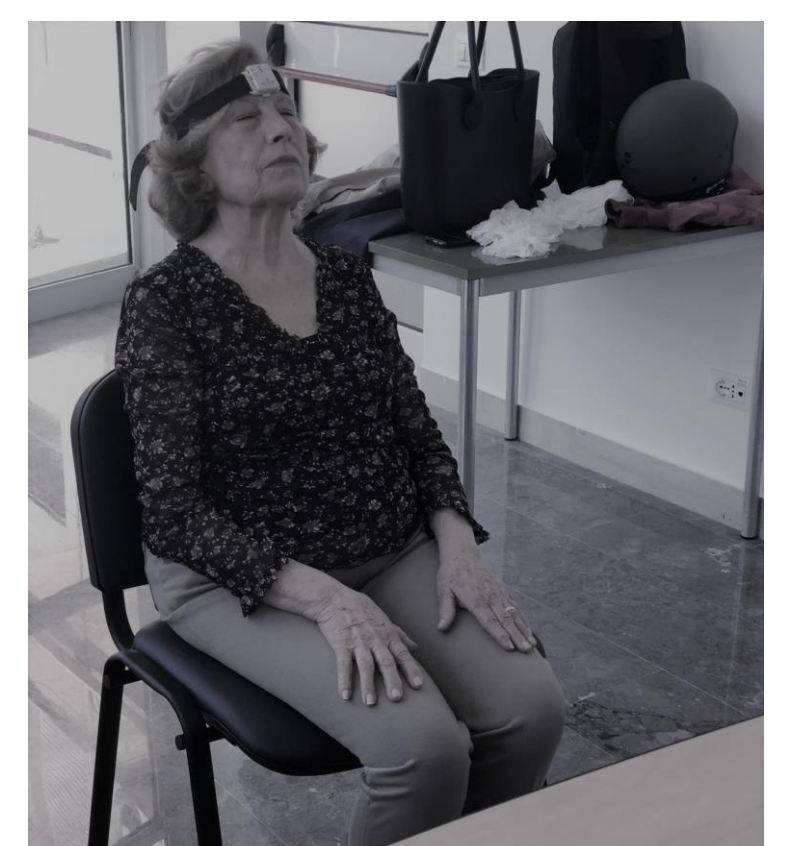
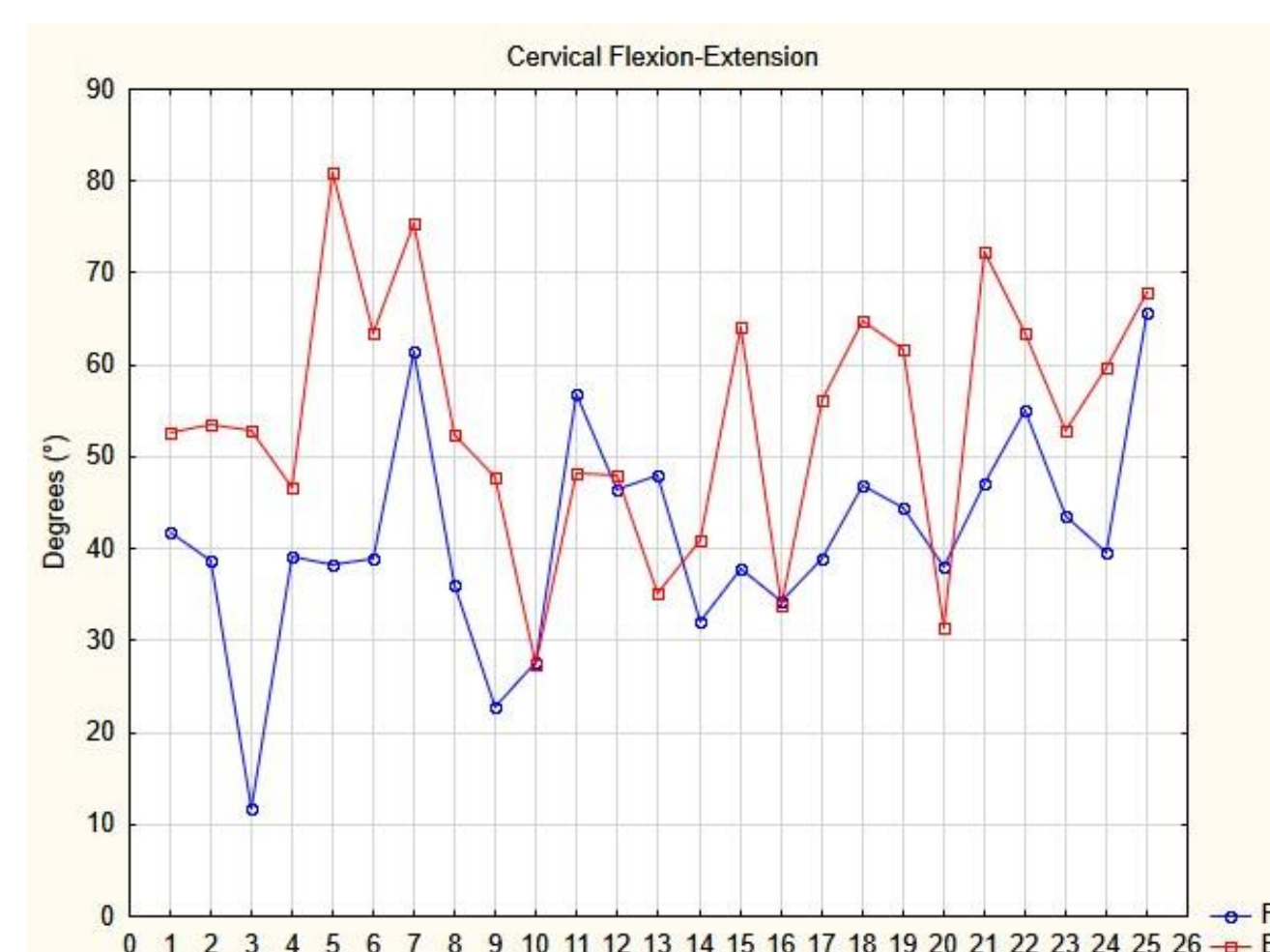
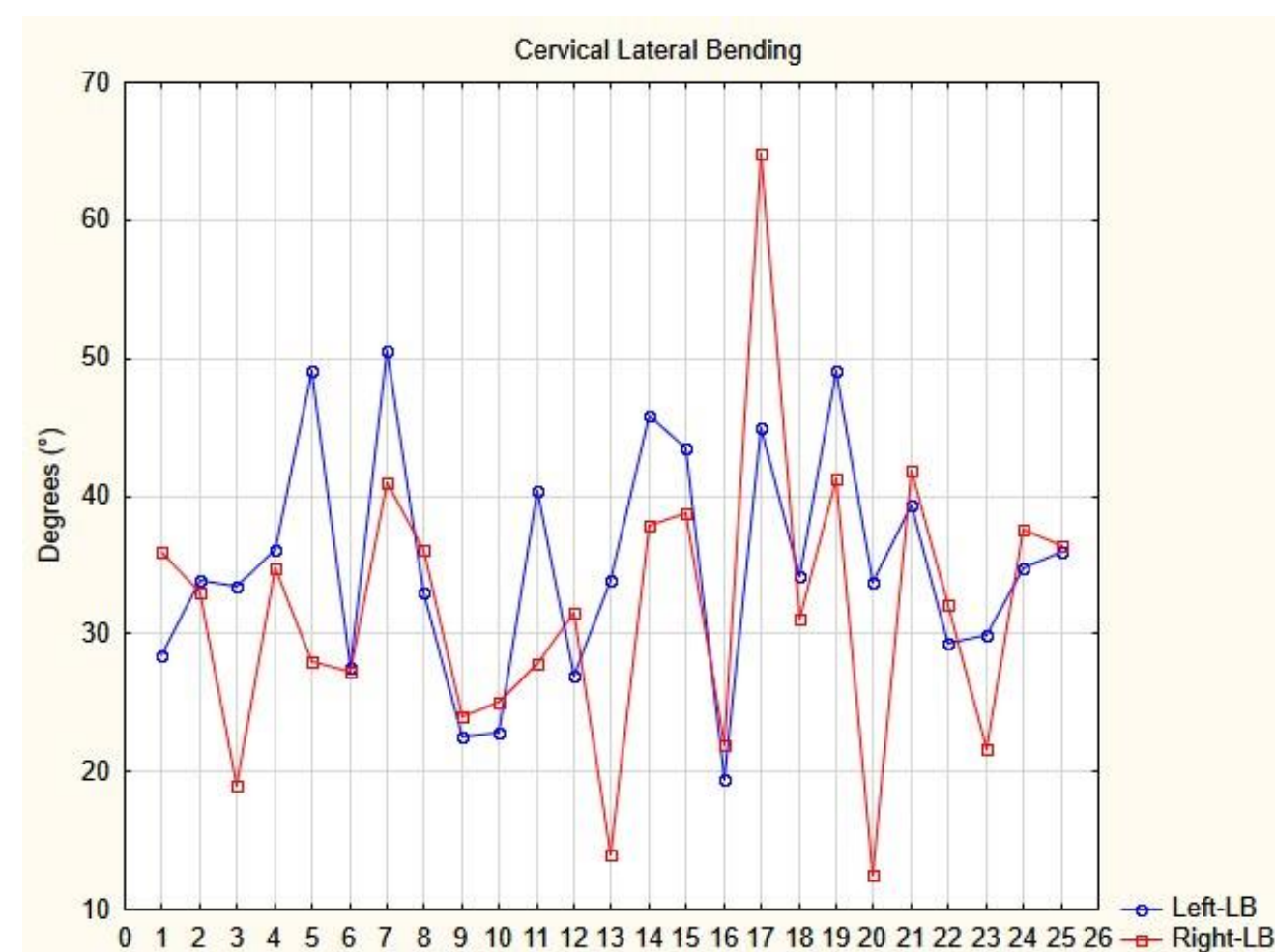
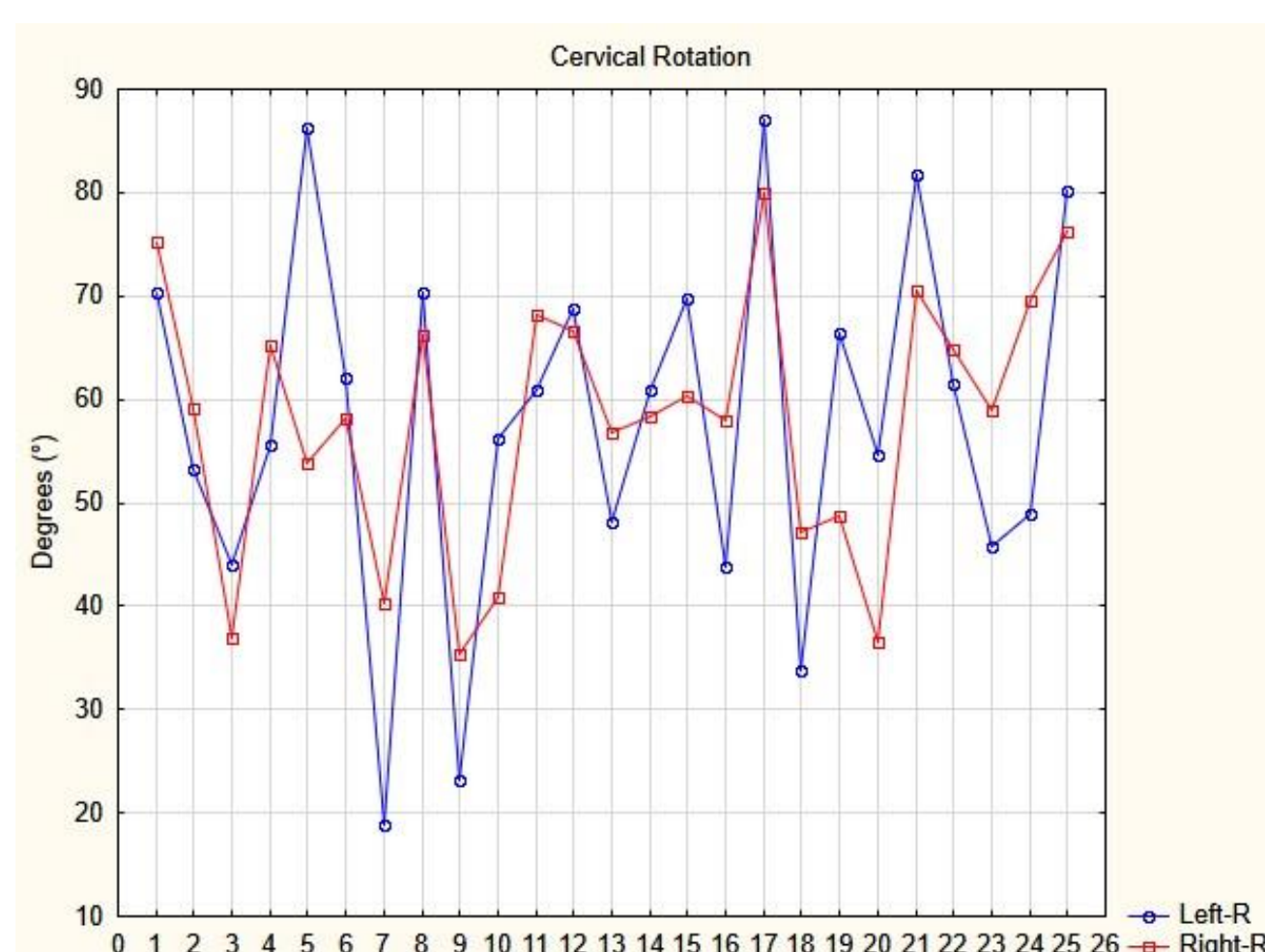
Migraine is a chronic neurological disorder that negatively influence the quality of life and involves a relevant impact on public health system. This disabling neurologic condition is associated with irritation of head and neck sensory nerves. Several authors have investigated the role of migraine on several aspects of fitness. The aim of this study was to estimate cervical spine mobility characteristics in a cross-sectional population of patients with migraine so as to discern eventual differences compared to healthy people.

Materials and Method

Twenty-five participants (age: 43,24±15,61 yrs; height: 165,28±8,92 cm; weight: 70,2±18,99 kg) were recruited in the University's Hospital for the study. Cervical Range of Motion (ROM) was evaluated via a wireless computer-aided accelerometer (Moover[®]; Sensor Medica[®]; Guidonia Montecelio, Roma, Italia) positioned medially of the frontal bone of the skull and above the bridge of the nose and fastened around the head via a strap. Each subject, seated in a chair, performed neck movements on the three planes until the maximal ROM. The measurement was a non-invasive technique.

Results

Cervical ROM data were the follow: left rotation: 58,11±17,64 °, right rotation: 58,07±12,90 °; left lateral bending: 35,13±8,55, right lateral bending: 31,80±10,72; flexion: 41,26±11,56, extension: 54,16±13,72. The 52% of our sample showed values of left rotation within the physiological range of motion (60°-80°) and the 44% for the right rotation. Only the 28% of the participants showed a normal left lateral bending (40°-50°), instead, for the right lateral bending the 16% of our sample showed normative values. Regarding the movements in the sagittal plane, data showed that the 44% reported flexion values within the normative angle of movement (40°-60°) and a physiological range of motion for the extension movement the 64% showed (45°-70°).



Discussion

Our results shown that people who suffered by migraine showed different cervical mobility characteristics compared to healthy people. In particular, our sample showed a restriction on rotation and lateral bending movements and this may be associated to an antalgic head posture used to reduce pain that involves muscular imbalance and muscle stiffness that may prejudices activities of daily living.

Conclusions

In summary, our results reported a relationship between migraine and cervical range of motion. Considering the small sample size, further investigations be conducted so as to confirm the relationship among the cervical ROM ability in patients with migraine.