

revealed that functionality, school performance, and general quality of life were negatively affected in JIAUE+ individuals [6]. The data obtained from the study revealed that the upper extremity joint involvement of individuals with JIA showed more negative effects than those without involvement. With these results, the need for a rheumatologist-physiotherapist-occupational therapist interdisciplinary team understanding was emphasized in order to include individuals with JIA with upper extremity involvement in the exercise-physical activity and participation processes in daily life at the earliest stage, taking into account the disease activity.

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AB1698

### HIGH-VELOCITY LOW-AMPLITUDE SPINAL MANIPULATIONS FOR THE MANAGEMENT OF LUMBAR RADICULAR SYNDROME: A SYSTEMATIC REVIEW WITH META-ANALYSIS

**Keywords:** Systematic review, Rehabilitation, Physical therapy/Physiotherapy

G. Bertoni<sup>1</sup>, R. Serio<sup>1</sup>, F. Andreoletti<sup>1</sup>, F. Maselli<sup>1</sup>, M. Testa<sup>1</sup>, S. Battista<sup>1</sup>.

<sup>1</sup>University of Genova, Department of Neurosciences, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health, Savona, Italy

**Background:** Lumbosacral Radicular Syndrome (LSRS) is a condition characterised by pain radiating in one or more dermatomes (Radicular Pain) and/or the presence of neurological impairments (Radiculopathy) [1]. Physiotherapy plays a crucial role in LSRS management [2]. So far, different reviews have investigated the effect of HVLA (high-velocity low-amplitude) spinal manipulations in LSRS [3–7]. However, these studies included 'mixed' population samples (LBP patients with or without LSRS) and treatments other than HVLA spinal manipulations (e.g., mobilisation, soft tissue treatment, etc.). Hence, the efficacy of HVLAT in LSRS is yet to be fully understood.

**Objectives:** This review investigated the effect and safety of HVLATs on pain, levels of disability, and health-related quality of life in LSRS, as well as any possible adverse events.

**Methods:** A systematic review with meta-analysis. We searched Randomised Controlled Trials (RCT) published in English in the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE (PubMed), EMBASE, PEDro and Web of Science up to June 2022. We considered eligible RCTs on an adult population (18-65 years) with LSRS that compared HVLATs with other non-surgical treatments, sham spinal manipulation, or no intervention. Two authors selected the studies, extracted the data, and assessed the methodological quality through the 'Risk of Bias (RoB) Tool 2.0' and the certainty of the evidence through the 'GRADE tool'. A meta-analysis was performed to quantify the effect of HVLA on pain levels.

**Results:** A total of 308 records were retrieved from the search strings. Only two studies met the inclusion criteria. Both studies were at high RoB. Two

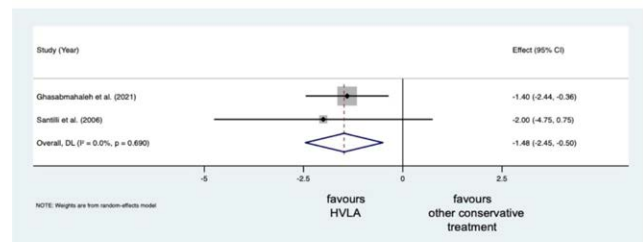
meta-analyses were performed for low back and leg pain levels. HVLA seemed to reduce the levels of low back (MD = -1.48; 95% CI = -2.45, -0.50) and lower limb (MD = -2.36; 95% CI = -3.28, -1.44) pain compared to other conservative treatments, at three months after treatment. However, high heterogeneity was found ( $I^2 = 0.0\%$ ,  $p = 0.735$ ). Besides, their certainty of the evidence was 'very low'. No adverse events were reported.

**Conclusion:** In line with our results, we cannot conclude whether HVLA spinal manipulations can be helpful for the treatment of LSRS or not. Future high-quality RCTs are needed to establish the actual effect of HVLA manipulation in this disease with adequate sample size and LSRS definition.

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#### Effect of HVLA on Low Back Pain



#### Effect of HVLA on Lower Limb Pain

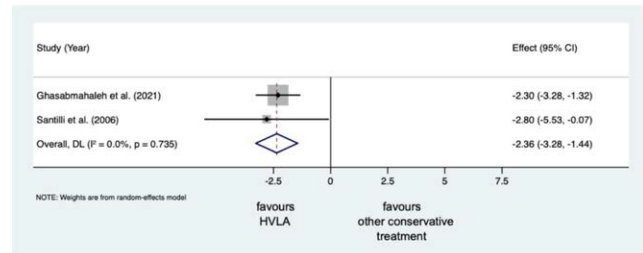


Figure 1.

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