

Poster presentation

The therapeutic value of low-energy laser (LLLT) for enthesitis in children with juvenile spondyloarthropathies

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Background

Children with juvenile spondyloarthropathy (jSpA), classified as enthesitis-related arthritis (ErA), under the ILAR classification, usually experience both arthritis and enthesitis. Therapeutic value of low-energy lasers (LLLT) for enthesitis has not been systematically studied in children with JIA.

Patients and methods

In this pilot study we report 20 children with jSpA, diagnosed based on both ESSG and ILAR criteria, which we treated, in addition to standard NSAID therapy, with LLLT. We used gallium-aluminium-arsenide (Ga-Al-As) continued laser (Iskra Medical, Slovenia). The usual location of treatment was AC joints, infrapatellar and/or Achilles' tendon insertions. The effects of therapy were determined using the 100 mm VAS scale for pain reported by patient, before, and 1 month after the therapy. Usual therapy consisted of 10-minute sessions on 10 consecutive days.

Results

There were 12 girls and 8 boys, medium age 11.4 yrs. (range 7–17). The mean VAS before the therapy was 6.1 (range 4–8) and one month after the therapy was 1.3 (range 0–4). The usual dose used was between 2.5–3 J/m² based on localization of enthesitis.

Conclusion

The biostimulating effect of LLLT is in its anti-inflammatory, analgesic and anti-edematous effect on tissues. It seems that Ga-Al-As laser therapy is a valuable addition to

the standard treatment modalities currently used for pain and inflammation treatment of enthesitis in children with jSpA. New patient enrolment and the correlation with six core outcome variables is underway.

References

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