



**Research Title: Evaluation before and after osteopathic treatment of Rom and Vas of acute pain in ankle sprain**

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**Purpose/Background:** Ankle sprains are a very common trauma and in the UK more than 5.000 cases are reported every year. Athletes are mainly affected by this type of trauma and especially those who play football, basketball or volleyball. The disability that occurs after this type of injury to the ankle should not be underestimated since individuals who are injured sometimes cannot walk and therefore they often cannot work. The purpose of this study was to evaluate the effect of the Osteopathic Manipulative Treatment (OMT) in athletes acute ankle sprains.

**Methods:** Twenty players of basketball, soccer or volleyball with acute ankle sprain were voluntarily recruited for the study. These subjects were recruited in several sports clubs. They were randomly assigned either to an intervention group or to a control group. Dorsiflexion Range of Motion (ROM), pain, and dominant or not-dominant injured limb were the variables studied. Both groups received standard RICE (Rest, Ice, Compression, Elevation) treatment in addition to which the intervention group received four osteopathic treatments at weekly intervals. ROM and pain were measured before and after each treatment for the patients in the intervention group, while the control group had ROM and pain measured once each week.

**Results:** Statistical analysis showed that ROM was significantly increased and pain significantly decreased in the intervention group compared to the control group over the study as a whole ( $P = 0.011$  and  $P = 0.007$  respectively). From the data obtained it was also observed that pain scores were significantly higher when it was the non-dominant limb that was injured and this was independent of treatment group ( $P = 0.02$ ).

**Conclusion:** The results of this study have shown that the OMT performed on athletes with acute ankle sprains significantly improves mobility and reduces pain compared to standard treatment alone.