

EFFECTS OF A MULTIMODAL THERAPY PROGRAM (MTP) INCLUDING RADON THERMAL THERAPY (RTT) ON BASDAI SCORES AND PAIN IN INPATIENTS WITH ANKYLOSING SPONDYLITIS (AS)

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Background and Aims

AS is a chronic inflammatory disease of insidious onset, mostly affecting the axial skeleton. It leads to varying degrees of restricted spinal mobility, pain and loss of functional capacity. Although there is a wide range of medications, including biologics, rehabilitation plays an important role in the treatment. Various MTPs are available for the management of individuals with AS. These programs can also include balneotherapy. In the Gastein valley RTT in the Gastein healing gallery (GHG) and radon baths (RBs) are administered, because of known positive analgesic and anti-inflammatory effects of RTT.

Methods

The aim of this study was to evaluate the effectiveness of a specific MTP: 3 weeks physical therapy (active und passive) combined with 5 RBs (0.3-3 kBq/l; 25 minutes bathing time) and 10 sessions in the GHG (radon content 30-160 kBq/m³; 1 hour). We recorded the BASDAI index and VAS scores for pain at the beginning (T0) and at the end of the program (T1).

Results

70 inpatients (mean age 54.8; 58% males) with AS treated in Klinikum Bad Gastein between January and April 2025 were assessed. 65.7% of the patients took NSAIDs and 51.4% biologics. The mean BASDAI scores were at T0 4.49 and at T1 2.56, respectively. Mean VAS pain scores were at T0 6.41 and at T1 2.87. The reduction in both BASDAI and VAS pain scores were significant ($p < 0.05$). We also found a reduction in other symptoms and a clinical improvement in general.

Conclusion

This study demonstrated significant and clinical relevant reductions in disease activity and in pain in inpatients with AS, who underwent a MTP including RBs and sessions in the GHG. From our point of view a MTP with RTT is an important part in the management of AS in addition to medical treatment.

Keywords: Ankylosing Spondylitis, BASDAI, Rehabilitation, Radon