

Evidence for the therapeutic effectiveness of organic content in medical waters. Double blind study in Szigetvár spa, Hungary

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Since 1966, Szigetvár in Hungary is well recognized as a thermal spa. The water contains mainly alkali-bicarbonates, sodium chloride and significant quantity of organics.

Our objective was to investigate the therapeutic effect of the mineral water of Szigetvár in patients suffering from osteoarthritis of the hips and the knees, and whether healing could be related to organic matter of water. During the treatment period patients received a 30-minute underwater jet-massage in a bath tub, 5 times a week. One patient group received jet-massage in a bath tub containing mineral water, the second group received the same treatment in tap water, and the third group received the same treatment in water containing the organic fraction. (This latter was prepared by using XAD macroreticular resins. 74 patients (24 male, 50 female, mean age: 67.3 ± 4.48 years) were enrolled. After randomisation patients were divided into three groups. Primary outcomes were measured by range of movement of the involved joints and Western Ontario and McMaster University Osteoarthritis Index. Visual analogue scale was applied to measure current severity of pain. Furthermore, quality of life was assessed using the Short Form 36 questionnaire. Statistical analysis was performed with IBM SPSS Statistics for Windows Version 22 (IBM Corp., New York, NY, USA). Significance of the results was studied by paired-sample t, Mann-Whitney, Wilcoxon and chi square tests. Our results have proved the therapeutic effect of medical water and that it can be replaced by the organic fraction itself.