Effect of Spa Therapy in Tiberias on Patients with Ankylosing Spondylitis

M. TISHLER, Y. BROSTOVSKI*, M. YARON

Summary Fourteen patients with ankylosing spondylitis (AS) were treated in a pilot study for two weeks at a Tiberias spa with a combination of hot mineral water baths and mud packs. A significant improvement was noticed in morning stiffness, finger to floor distance and the overall well-being assessment both by the patient and the physician. A significant reduction in the use of analgesics and NSAIDs was also noted in most of the patients. Improvement in all parameters began after one week of treatment and was still present at three months.

Key words Balneotherapy, Ankylosing Spondylitis.

INTRODUCTION

Balneotherapy, which uses water immersion as a therapeutic method, is probably as old as mankind and was already mentioned in the ancient Jewish canonical sources (1). This method of therapy is widely used in Central and Eastern Europe but is not accepted as a therapeutic modality in North America. The English literature contains only a few controlled studies on the effect of hot mineral water on rheumatoid arthritis (RA) and osteoarthritis (OA) (2-4). No such studies in patients with ankylosing spondylitis (AS) could be found. Recently we described a favourable effect of spa therapy in RA and OA patients treated for two weeks with mineral baths and mud packs in Tiberias Hot Springs (5). These springs produce hot mineral water that flows at a constant temperature from a depth of 2 kilometers. The water is rich in sodium chloride, sulfate, calcium and contains many trace elements such as cobalt and zinc. The purpose of the present pilot study was to evaluate the effectiveness of spa therapy, including hot mineral baths and mud packs from Tiberias springs on patients with AS.

MATERIALS AND METHODS

Fourteen patients with active ankylosing spondylitis (AS), as defined according to the modified New York criteria (6), were admitted for a two-week treatment period at a Tiberias spa. The patients were randomly selected from a group of more than 60 AS patients followed regularly at the Rheumatology Clinic, Tel Aviv Medical Center. Patients with uncontrolled blood pressure, unbalanced ischaemic heart disease or severe peripheral vascular disease, and patients with total hip replacement were excluded. All patients were treated with a combination of daily mineral water baths at 38°C for 20 min. and daily mud packs applied on the lower back for 20 min. at an initial temperature of 45°C. No exercise program was included in this study and no patient had to pay for this treatment.

The demographic and clinical characteristics of the patients are summarized in Table I.

All patients enrolled had an active disease defined by night pains, morning stiffness and were using at least analgesics and/or NSAIDs regularly. Ten patients were using only NSAIDs, two were using a combination of NSAIDs and analgesics and two were using only analgesic treatment.

Patients receiving methotrexate or sulphasalazine had been using them for at least three months prior to study entry. One patient of the study group had ulcerative colitis associated with AS. Remitting drugs were continued throughout the study period without change in dosage. Patients were allowed to change NSAID and analgesic doses following improvement or worsening of their symptoms. No change in the type of NSAIDs taken was allowed.

Each patient was assessed by the same rheumatologist 7 days prior to arrival at the spa hotel (week 0), after one week of therapy (week 1), at the end of treatment (week 2) and at 4, 8 and 12 weeks from the start of the treatment. At each examination the clinical indices assessed were: 1) duration of morning stiffness (min), 2) modified Schober test (cm) (6), 3) chest expansion (cm),...
Fig. 1: Morning stiffness in AS patients following balneotherapy (mean ± SD).

RESULTS

Morning stiffness

A significant improvement in morning stiffness was noted in all patients at the end of treatment (week 2). The mean time of morning stiffness decreased from 38 ± 7 minutes at baseline to 15 ± 4 minutes at 2 weeks. On follow-up determinations this reduction tends to decrease gradually, but after 3 months of follow-up it is still significantly lower than baseline values (p < 0.05) (Fig. 1).