15-2 Thalassotherapy in diabetic polyneuropathy: a study in Pomorie, Bulgaria

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Objectives: The Bulgarian Black Sea coastline is 378km long and offers many opportunities for prophylactic and rehabilitation treatments in a number of conditions of significant social impact. Of special importance is the favourable temperate continental climate, the calm and safe sea ideal for swimming, with low salinity and endless beaches. Another key factor for the development of Black Sea rehabilitation and balenology is the abundance of mineral waters and therapeutic mud, which has excellent physical-chemical indicators.

Diabetes mellitus and its complications are a source of considerable morbidity and mortality, with important medical and social implications. The aim of our study was to establish the efficacy of combined application of seawater, Pomorie therapeutic mud and lye in the diabetic polyneuropathy prophylaxis and rehabilitation.

Materials and methods: The study was carried out during the 2011 and 2012 summer seasons in 43 patients (18 male and 25 female) with diabetic polyneuropathy from Germany, Russia and Bulgaria. The average age was 62±2.15 years and the average duration of diabetes was 16±3.4 years.

All patients underwent combined treatment with mud baths (temp 37°C, duration 15-20min, 10 applications) and 10 lye electrophoresis procedures to the lower limbs, and sea water baths.

The visual analogue scale (VAS) was used before and after the course of treatment to objectively measure the pain and paraesthesiae of the lower limbs.

Results: Following a 2 week treatment course there was significant improvement in the clinical symptoms of diabetic polyneuropathy. 90% of patients reported improvement in pain, with VAS decreasing from 4.85±0.31 to 2.75±0.24, p<0.05. There was also a decrease in lower limb paraesthesiae in 95% of patients, with VAS decreasing from 5.61±0.65 to 3.26±0.31, p<0.05.

Conclusion: The clinical symptoms and quality of life of patients with diabetic polyneuropathy improved significantly following combined treatment with Pomorie natural resources as a result of the trophic and pain-reducing properties of therapeutic mud, lye and sea water. We support the combined application of these treatments in the prevention and rehabilitation of patients with diabetic polyneuropathy.

Keywords: Thalassotherapy, Diabetic polyneuropathy, Therapeutic mud