Underwater traction balneotherapy cabin development

Olah C(1), Borbély T(1), Kiss Z(1)

(1)Department of Neurosurgery, Borsod County Teaching Hospital, Miskolc, Hungary
olahcs@gmail.com

Underwater traction hydrotherapy was invented by the Hungarian rheumatologist, Károly Moll, who has been developing this treatment since the fifties of the last century into a therapeutic option widely used in many rheumatology and balneology centers in Hungary. In contrast to non-immersion traction, underwater traction hydrotherapy in tepid to warm water affords improving the patient's condition without any risk. Previous biophysical studies have measured (taking into account the patient's body weight, hydrostatical forces and buoyancy effect) the traction forces exerted on individual spinal segments. Underwater traction balneotherapy in warm water relaxes muscles and ligaments, whereas moderate and sparing traction — aided by the protective effect of hydrostatical pressure — accomplishes retraction of intervertebral disc protrusions and herniations, relieves the tension of nerve root canals, as well as mitigates axial and radicular pain.

This treatment is very popular in Hungary, but it is hardly known in the rest of the world.

Our (medical doctors and bioengineer) group is develops and tests a new easy-to-assemble, safe, portable, innovative underwater traction balneotherapy cabin. We hope that our development will make this balneological treatment available everywhere. This project is supported by GINOP-2.1.7-15-2016-00249 European grant.