



Balneotherapy, Stress and Animals



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Abstract

Balneotherapy has long been known as a source of relief. It is known that using these waters in ancient Roman times is believed to be closely related to individual health, as well as the cultural and social orientation of taking these waters. Scientific studies on this subject in animals are rarely tried. In this review, the effect of balneotherapy and stress is discussed. There is a lot of work to be done in this area.

Keywords: Balneotherapy; Stress; Animals

Editorial

The endocrine response to the stress is characterized by increased ACTH and cortisol secretion. The hypothalamic-pituitary-adrenal (HPA) axis transitions to action and consequently enhances ACTH and cortisol secretion [1,2] in male and female rats exposed to various stressors such as coercion, restriction and social differentiation. Increased ACTH is accompanied by adrenal hypertrophy, increased production of adrenocorticosteroids, and hypertension. The etiology of the causes of HPA-mediated blood pressure increases is due to mineralocorticoids and glucocorticoids. Other cardiovascular risk factors, including obesity, dyslipidemia and diabetes, are also associated with an excess of glucocorticoids [3-5].

Balneotherapy has long been known as a source of relief. It is known that using these waters in ancient Roman times is believed to be closely related to individual health, as well as the cultural and social orientation of taking these waters. As a matter of fact, spa cures have proven to heal many diseases from muscle and skeletal system to nervous disorders. Today, many people go to spa centers not only for their health but also for the stress of daily life [6,7]. Balneotherapy is a well-known practice, although scientific studies on biological effects are not sufficient. In a study of the effects of balneotherapeutic practices on stress and cortisol levels [6], balneotherapy methods relieve stress and contribute to cortisol levels in stressed people, but report that more work is needed in this regard. It has been found that the presence of mineral springs contributes significantly to the restoration of stress-disturbed metabolism and insulin regulation [8].

In a high population study with mental stress, sleep disturbance and various problems, it was shown that using bath-style hot spring water from balneoterpiik methods resulted

in a significant difference in comparison with the control group, improvement of sleep disturbance, decrease of stress hormones and improvement of health parameters [9,10].

Unfortunately, in literature researches, we did not find a study investigating balneotherapeutic methods for relieving stress in animals. Therefore, this field is strongly needed to work in animals.

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