

## **HORMONAL INDEX OF WELL-BEING IN WOMEN AFFECTED BY MEDICATION OVERUSE HEADACHE (MOH)**

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*Background.* Chronic migraine is the most disabling form of headache among the ICDH-2. The failure of its treatment is often due to a superimposed medication overuse headache (MOH), a form of secondary headache which has been defined as an interaction between a medication excessively used and a susceptible patient (1).

*Purpose.* Since migraine is often associated with di-stress, which is highlighted as a trigger factor of migraine attacks but may also appear as reaction to migraine attacks, we have measured possible modifications of the adrenal regulation during the disease.

*Methods.* We measured Cortisol, DHEAS and Testosterone levels in the saliva of fifteen women affected by MOH and compared to a group of fourteen healthy women. The participants were instructed how to collect saliva samples at home, which was performed twice a day: in the morning and twelve hours later, in the evening. Cortisol to DHEAS ratio and Testosterone to Cortisol ratio were calculated as index of psycho-physical well-being.

We would like to emphasize the difficulty to gather a sufficient number of patients affected by MOH and to study them after an adequate wash-out period following the last assumption of AINS and/or triptans; in any case, once under endocrine evaluation the condition must be painless.

*Results and discussion.* Salivary cortisol was consistently higher in MOH patients as compared to healthy subjects: this aspect is interesting since experimental data suggest that chronic exposure to high levels of corticosteroids can contribute to produce neurotoxic effects. The increased Cortisol/DHEAS and the reduced Testosterone/Cortisol ratios indicated both a loss of the physiological balance to hypercortisolemia mediated by DHEAS and an imbalance between the anabolic hormone testosterone and the catabolic hormone cortisol in favour of the last one.

*Conclusions* Further studies are required to elucidate the possible clinical relevance of a dysregulation of adrenal secretion in patients affected by MOH. However, the present study suggested that MOH is associated with negative index of well-being.

1.Martelletti P. (2004) Health status after detoxification in medication overuse headache. J Headache Pain 5:215-216.