

Letter to the Editor

Stress and Andrology

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As invited to be a member of the staff of editors, is a pleasure to be part of the first and special edition of “Austin Andrology”. The journal “Austin Andrology” may offer to scientists from different backgrounds and profiles (doctors, veterinarians, biologists, biochemists, histologists and physiologists, and many others) an integrated view of andrology and its applications to human and animal health. It is gratifying to be part of the editorial staff and share with colleagues the strengths and projections of this journal. For this intermediate, I congratulate to Austin Publishing Group by the challenge of creating and promoting a scientific journal focused on these issues.

The World Health Organization estimated that environmental stressors cause more of 20% of global disease burden and more of 20% of all deaths [1]. Humans and animals are subject to several stressors that depending on the intensity, duration and repetition, can adversely affect overall health, and in particular the male system reproductive [2-3]. Within the integrated vision of andrology, the link between stress and andrology can be approached within various topics featuring “Austin Andrology” such as hormones, male system reproductive, blood and sperm, sperm production & storage, testosterone deficiency.

Stress response involves the activation of the sympathetic-adrenomedullary axis and the hypothalamic-hypophyseal-adrenal axis, with the consequent release of catecholamine and cortisol, respectively. Both axes affect the different levels of the hypothalamus-

hypophyseal-gonadal (HHG) axis, influencing the secretion of testosterone from the Leydig cells, as well as on other cell types in the testis [3]. However, hormones of both an axes hormone (cortisol and catecholamines) does not always produce the same effects on HHG, and different actions may vary according to the level where they act [3]. Further work will be needed to know more about the different mechanisms of action of stress hormones on the HHG axis. Besides, the link between stress and andrology is “back and forth”; not only stress hormones affects the HHG axis, but also some hormones of HHG axis, (such as testosterone, can affect the stress response under different conditions [4]. It is interesting that in addition to this feed-back between stress and andrology, several social factors (such as social status or competition) can affect in different ways the interaction between them [5].

In this regard, Austin Andrology offers the possibility of development in this area of work, contributing researchers from different origins provide original information through the publication of articles with international impact. I appreciate the opportunity to participate and contribute to the journal and hope that researchers and clinicians may contribute with their work and allow the scientific growth of andrology.

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