

LECTURE PRESENTATION

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Hypogonadism and aging

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The Massachusetts Male Aging Study [1] shows that male hormones decrease with aging. This is due to some testicular and hypothalamic-pituitary defects. Impaired hypothalamic secretory reserve, resulting in a reduced and chaotic secretion of GnRH, reduced pituitary response to GnRH, resulting in an increased but irregular LH pulse frequency [2]

With aging, there is a 1.3% increase of sex hormone binding globulin (SHBG) levels per year [3]. SHBG binds strongly to testosterone, resulting in a reduction of bioavailable testosterone. The age-related reduction of testosterone seems genetically determined³. The Testosterone reduction plays many effects on body composition [4]. Testosterone also operates its effects on the penis leading to a reduction of smooth muscle cells/connective tissue rate, neuronal nitric oxide synthases, arterial influx/venoocclusion rate. Recently, three scientific societies published some recommendations for the investigation, treatment and monitoring of this kind of hypogonadism, that has been renamed Late Onset Hypogonadism [5]. These recommendations have been updated lately [6] and shared by two more scientific societies.

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