

Protective Role of Germinal Angiotensin I Converting Enzyme (gACE) for Sperm and Fertilization: Review

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The present review is focused on the processes in male reproductive system associated with the motility and maturation/capacitation of sperm and it is related to the fact that about 40% of male infertility cases have unclear nature, i.e. idiopathic infertility, which often results from compromised maturation of sperm in the epididymis and other portions of reproductive ducts. One of the enzymes involved in realization process is germinal isoform of angiotensin I converting enzyme (gACE), also known as testicular ACE (tACE). Our study revealed the key role of gACE in spermatogenesis and later in the process of fusion of sperm and eggs, suggesting a possible remodeling and protective function of the enzyme toward male gametes. This study is an attempt to demonstrate the importance of gACE in fertilization process and male reproductive health.

Key words: gACE, testis, reproduction, sperm, male infertility.