Acta Scientific Microbiology (ISSN: 2581-3226)

Volume 7 Issue 9 September 2024

Editorial

Metosartan and its Effects on Sperm Count

Eswari Beeram*

Assistant Professor, Department of Biological and Chemical sciences, SoLAS, Mohan Babu University, A.P, India

***Corresponding Author:** Eswari Beeram, Assistant Professor, Department of Biological and Chemical sciences, SoLAS, Mohan Babu University, A.P, India.

Received: July 23, 2024

Published: August 01, 2024

Metosartan and its recent updates on sperm count led to new shocking evidences in *in vivo* compared to *in vitro*. This drug majorly affects on the folding of chromatin and proven to induce sperm death by Apoptosis. Metosartan proven to induce ss DNA breaks in the chromatin finally resulting in the unfolding of the sperm DNA. As we now sperm DNA is highly compact and should be maintained to prevent the infertility and fail in which can cause DNA abnormalities leading to early expression of genes.

Metosartan majorly targets RNAse in the male reproductive organs testes and epididymis which is majorly involved in sperm maturation and production. Targeting RNase in the organs can finally results in sperm count reduction. In *in vivo* condition the drug majorly induces oligospermia and can finally leads to Aspermia. In females the drug side effects are minimum as it does not effect the normal synapsis of the X chromosome during meiosis.

Recent studies have proven that intake of dosage of metosartan at the concentration of 1mg/ml can maintain the sperm count and concentration higher than this or lower than this can have deleterious effects on the sperm count and DNA damage. C. sinensis commonly referred to green tea contains some of the active components which can negotiate the negative effects caused by the drug. The active component can reduce the DNA damage by inhibiting the ssDNA breaks in sperm DNA and can maintain the sperm count found to be satisfactory.

Due to ss breaks induced by the drug there will be change in the topology of the folded chromatin resulting in unwinding of the chromatin and as well as dissociation and separation of nucleosomes from the DNA distracting the teritiary structure and further higher order structures of chromatin. The drug proven to be not having any inhibition properties on enzyme Topoisomerase. Similar to metosartan aspirin can induce apoptosis in the reproductive organs but it does not effect the sperm count. Metosartan also targets assembly and maturation of Nuclear pore complex normally necessary for the selective transport of nuclear components into and out of the nucleus.

So, By focusing on future more research on these drugs are necessary for the safe and successful upcoming generations.