



ZIHP Special Seminar

Thursday, November 21, 2019, 10:00 h

Animal hospital, main building

Seminar room TFA 01.23

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NHI/Fogarty GeoHealth hub fellowship (U2R TWOIOI 14)

High altitude exposure affects male reproductive parameters: could it also affect the prostate?

Many physiological responses including reproductive parameters due to high altitude (HA) have been studied. This exposure affects sperm count, epididymal diameter, sperm DNA and erectile function. Sex hormones such as testosterone are also involved in the HA adaptation as an erythropoiesis regulator. However, limited evidence is available related to the effect of this exposure in prostate health, even though this organ is androgen-dependent.

Furthermore, several factors and biomarkers such as Hypoxia Inducible Factor (HIF), Sentrin-specific protease 1 (SEN1), Interleukin-6 (IL-6), C-reactive protein (CRP), including testosterone, are related to both high altitude diseases and prostate illness, and in epidemiology studies, showed high prevalence of varicocele (an enlargement of the veins within the scrotum) in men who work over 3000 meters in chronic intermittent hypobaric hypoxia (CIHH) conditions. This exposure might induce negative effects regardless of the hypoxic molecular path in prostate illness. Research in physiological and epidemiological studies are needed to better understand this relationship and draft the lines for future research.

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