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BACKGROUND

According to the European Health Risk Assessment Network (EFHRAN) on EMF exposure Report, “the cell phone consists the source that is responsible for the 60% of the total electromagnetic radiation that a person may be exposed to” (EFHRAN 2010). It seems that scientists need to investigate this new environmental/lifestyle agent for its health impact.

METHODS

The PRISMA protocol has been applied so as to Endocrine assessment is restrained to stress and reproductive hormones, awakening response, melatonin, thyroid hormones and growth factors. Their acute response and circadian disturbances have also been addressed. The selected studies are presented in accordance to the end-organ responses evoked after the hypothalamus-pituitary (HP)-end-organ response of the five main endocrine axes: gonadal axis (HPG), adrenal axis (HPA), thyroid axis (HPT), somatotrophic axis and other hormones (i.e. melatonin).

RESULTS

The results are presented in figures and summarized in a Table as follows

CONCLUSIONS

Endocrine response to RFs exposure: a. is present below ICNIRP limits, affecting all endocrine axes and circadian rhythms, b. are age/long term exposure/ frequency field dependent c. appear to be initiated by the thyroid hormones, d. R1 steroids nuclear receptors integrates all suggested explanatory mechanisms of all reported effects, structurally and functionally preserved in evolution: more importantly, its major hub affecting all endocrine axes and circadian rhythms, b. are age/long term exposure/ frequency field dependent c. appear to be initiated by the thyroid hormones, d. R1 steroids nuclear receptors integrates all suggested explanatory mechanisms of all reported effects, structurally and functionally preserved in evolution: more importantly, its major hub

References

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There is no conflict of interest

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