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PAPER TITLE

EFFECTS OF RADAR OCCUPATIONAL EXPOSURE ON THE MALE FERTILITY

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ABSTRACT (See instructions overleaf)

Effects of radar occupational exposure on the male fertility

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Objective: The estimation of possible harmful effects upon the male fertility due to the occupational exposure to low and medium levels of pulsed microwaves.

Methods: 55 males occupationally exposed to microwaves have been studied compared to matched controls. Exposure assessment and consequently thorough investigation of the fertility have been made: complex fertility questionnaires concerning sexual dynamics troubles, reproductive history, pregnancy outcomes, time to pregnancy, spousal abortion rate, birth weight, gestational age, congenital malformations, etc. Serum testosterone analysis and seminal analysis (sperm count, volume, motility) have also been made.

Results: Exposure assessment has pointed out whole body SARs between 0.01 and 1W/Kg. Epidemiologic research has shown significant increase of sexual dynamic impairment, significant increase of time to pregnancy and decrease of the fertility. Low levels of serum testosterone, without statistical relevance, have been recorded. Slight but statistically significant decreases in sperm count and motility have also been found.

Conclusion: Since the exposed group dimensions are rather low, the statistical power of our study is somehow slight but, however, it must be considered at least an alarm signal and a stimulus towards further research in order to elucidate these found harmful fertility effects of the microwaves.