

Significato degli indicatori biologici di esposizione a mercurio

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KEY WORDS

Mercury; exposure indicators; biological monitoring

SUMMARY

«Exposure indicators for inorganic mercury: an updating». **Background:** *It was considered appropriate to update of the significance and use of the different mercury exposure indicators.* **Objective:** *The aim of the this paper was to correctly select biological media and sampling time and to understand the toxic kinetics of mercury for assessment of accurate biological monitoring.* **Results:** *It was confirmed that mercury in blood (B-Hg) is a good indicator of recent exposure, while urinary mercury (U-Hg) indicates current exposure when mercury reaches the renal steady state. B-Hg values are greatly influenced by fish consumption, while the variables influencing U-Hg values are amalgam fillings, commercial γ -globulin preparations, vaccines, topical remedies, environmental pollution and hobbies, occupational exposure and, partly, fish consumption. The speciation of mercury (Hg^0 , Hg^{2+} , methylmercury and ethylmercury) in biological media, should provide additional and important information in evaluating mercury toxicity.* **Conclusion:** *It was stressed that the appropriate choice of exposure indicators has to take account of the different variability factors and the characteristics of the toxic kinetics of mercury. The results of biological monitoring must be compared with references values, which are generally in the order of several $\mu g/g$ creatinine, and limit values such as ACGIH BEI (U-Hg 35 $\mu g/g$ creatinine and B-Hg 15 $\mu g/l$) or the DFG BAT (U-Hg 100 $\mu g/l$ and B-Hg 25 $\mu g/l$).*