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Assessment of blood and urine lead levels of some pregnant women residing in Lagos, Nigeria.

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Abstract

Assessment of lead in blood (BLL) and lead in urine (ULL) of some non-occupationally exposed, nonsmoking 214 pregnant Nigerian women, aged 17 to 49 years, and resident in Lagos was carried out using atomic absorption spectrometry with control subjects consisting of 113 nonpregnant women. From results, the mean BLL and ULL ($\mu\text{g/dL}$) for pregnant women (59.5 ± 2.1 ; 29.4 ± 1.1) were significantly ($p < 0.01$) higher than the values obtained for nonpregnant women (27.7 ± 1.1 ; 9.2 ± 0.6). BLL found in women in the first, second, and third trimesters were 57.2 ± 2.3 , 61.6 ± 2.2 , and 63.1 ± 1.8 , respectively. ULL could not serve to predict BLL due to weak correlations ($r = -0.06$ to $+0.15$; $p > 0.10$). Study is a contribution to blood and urine lead status of Nigerian pregnant women, being relevant for healthcare management purposes, public health decision making, and possible primary prevention activities.

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