

SURMA A TOXIC COSMETIC

Pages with reference to book, From 196 To 196

Sir,

I was very interested to read the letter "Surma - a toxic cosmetic?" from Drs. Safdar Ali, Mohammad Iqbal and Muhammad Yaqub (JPMA., 1988; 38: 281-288). In it they stated that non-users in the study had blood lead levels within the safe limit (below 0.4 ppm, 40 ug/dl) and that 15% of casual users and 85% of frequent users had levels 0.6-0.8 ppm (60-80 ug/dl) at which mild toxicity may occur. However, in my view, they have not done themselves justice with regards to the importance and to the alarming implications of their observations, for the following reasons. The one-time safety limit of 40 ug/dl for blood lead levels¹ has now been replaced by 20 ug/dl as a mean acceptable value² with 25 ug/dl being regarded as elevated³. However, apart from acute encephalopathy and death which can be caused at 80 ug/dl and anaemia at 604. loss of 1.0. in children can occur at 25 ug/dl, increased age at which children first walked and talked at 11 ug/dl, blood pressure increases at 8 ug/dl and even an increase in hearing thresholds^{4,5} at 4 ug/dl. The effects of lead vary considerably from individual to individual e.g. a level of 100 ug/dl can cause death in one person but have no effect on another⁶, possibly because blood levels are a measure of recent exposure only, the half-life in blood being about 18 days, whereas it is retained in brain cells for months or even years. The effects of lead are more severe in Caucasians than in some other races⁷. The results of Drs. Safdar Ali et al., compare with a study carried out among Punjabis in Britain in 1978 in which controls had levels 4-45 (mean 203) and surma (imported from Pakistan) using children 8-70 ug/dl (34.2), $p < 0.001$, of whom 9(243%) had over 40 and 2(5.4%) over 60 ug/dl. There was no evidence of, lead poisoning, although a death has been reported elsewhere. In my editorial, Plumbum - Karachi, Quo Vadis? in the September 1988 of JPMA, I mentioned some of our findings in Karachi controls: 16.4 - 49.5 (mean 34.4); traffic police 35.4-67.6 (46.6), school children 213-52.2(38.2), $p < 0.01$; and since then another group of school children, 10.4-100.9 ug/dl (38.0), $p < 0.01$. We had not considered the surma problem, but had assumed traffic exhaust and water pollution as the culprits. Clearly surma is a very important factor and the results found by Drs. Ali, Iqbal and Yakub are extremely alarming as were those found in U.K., even if Pakistanis are not as badly affected by lead as Westerners. May I congratulate them on obtaining this very valuable piece of information.

Yours sincerely,

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