Can Aluminium-Containing Antacid Produce Dementia?

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Dear Sir,

To clarify the contradictory serum and urinary aluminium (Al) values found in patients with duodenal ulcer treated with an Al-containing antacid, 'Tisacid', we have conducted an experiment on ourselves twice at an interval of 10 days. In each case we took 4 tablets of Tisacid in 100 ml water. One tablet contains 58.1 mg Al. After the ingestion of Tisacid, blood samples were taken every 15 min for 1 h, and subsequently one sample after 2 h and another after 3 h. The Al content of the blood samples were determined by atomic absorption photometry. A blood glucose tolerance test with 50 g glucose was performed 1 week later. As with blood sugar, Al absorption reached its maximum at 30 min, and after 2 h it reverted to the value observed before the ingestion of Tisacid. Our renal function was intact. Although the daily intake of Al in man is relatively high [1, 2], the rapid decrease in serum Al level makes the presence of considerable Al deposits in the tissues improbable. One of the prerequisites for the absence of such deposits is, without doubt, intact renal function [3]. Thus it is easy to understand why neither dementia [4] nor other complications are observed in ulcer duodenis patients who are treated with an Al-containing antacid [5].

References

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