Citric Acid in Calcium Effervescent Tablets May Favour Aluminium Intoxication

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Dear Sir,

It has been established recently that intestinal aluminium absorption, which is normally very low, can be increased by simultaneous ingestion of citrate [1]. This effect, due to the well-known ability of citrate to form soluble complexes, may result in aluminium intoxication [2].

Two years ago, Hewitt et al. [3] called attention to this danger. It may however not be generally recognized that nearly all effervescent tablets contain citric acid.

Most patients with chronic renal disease consume calcium supplements, which are often taken in the form of attractive and palatable calcium effervescent tablets, because the much cheaper calcium carbonate is not commercialised as such. As these patients often will be prescribed aluminium hydroxyde as well for phosphate binding, there is considerable chance that both drugs will be consumed simultaneously, of which the physician may not be aware.

This interaction probably explains the varying incidence of aluminium intoxication and the failure to usually find any relationship with the amount of aluminium consumed.

We therefore feel a serious warning is warranted, particularly since the fact that effervescent tablets con-

tain citric acid is not always mentioned on the prescription.

There are also reasons to give attention to other inadvertent ways of citrate ingestion, like soft drinks, in patients being prescribed aluminium hydroxide medication.

References

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