

Abstract

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Plasma homocysteine, folate, and vitamin B12 levels in patients with laryngeal cancer.

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OBJECTIVE: To determine plasma levels of homocysteine, folate, and vitamin B12 in patients with laryngeal cancer and a control group.

DESIGN: Analysis of homocysteine, folate, and vitamin B12 levels in 25 consecutive untreated patients with laryngeal carcinoma and 80 healthy control participants. The study and control groups were subdivided into smokers, ex-smokers, and nonsmokers, as well as drinkers and nondrinkers.

INTERVENTION: The AxSYM system was used to measure total homocysteine levels, and the ARCHITECT system (both Abbott-Diagnostics Division) was used to measure folate and vitamin B12 levels.

MAIN OUTCOME MEASURES: Homocysteine, folate, and vitamin B12 levels.

RESULTS: The mean (SD) level of total homocysteine in patients with laryngeal carcinoma was 2.84 (1.62) mg/L vs 0.99 (0.24) mg/L in the control group ($P < .001$). The mean (SD) folate plasma level was 4.3 (2.2) ng/mL vs 7.9 (2.4) ng/mL ($P < .001$).

CONCLUSIONS: Metabolic alterations in homocysteine, folate, and vitamin B12 levels, especially hypofolatemia, could be associated with laryngeal cancer. Lengthier follow-up studies and larger groups of patients will help determine the real role of these metabolic alterations.

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