

PARATHYROID FUNCTION

Cognitive dysfunction in women with mild primary hyperparathyroidism

Postmenopausal women with mild primary hyperparathyroidism display deficits in cognitive function that might be reversed by parathyroidectomy, report researchers from Columbia University College of Physicians and Surgeons in New York.

Primary hyperparathyroidism is often asymptomatic, although patients can complain of nonspecific symptoms such as fatigue or mental weariness. These symptoms are hard to quantify and much debate has ensued as to whether they

can be directly attributed to primary hyperparathyroidism. To date, few studies have addressed the issue of cognitive dysfunction in patients with this disease.

“We decided to do this study in order to examine many facets of cognition that could be affected in primary hyperparathyroidism,” explains lead author Marcella Walker. The researchers designed a prospective, case-control study that assessed validated measures of cognitive and psychological function; the study group comprised 39 postmenopausal women with primary hyperparathyroidism who underwent curative surgery and 89 postmenopausal women without primary hyperparathyroidism.

Walker and colleagues examined several aspects of cognition. In addition, the team controlled for the effects of depression and anxiety on cognition. “This [control] was important because psychological symptoms can affect cognitive function,” Walker comments.

At baseline, women with primary hyperparathyroidism had elevated symptom scores for depression and anxiety. In addition, they performed less well than the control group in tests of verbal memory and nonverbal abstraction. Some of these deficits had improved 6 months after parathyroidectomy. Of note, the observed effects were independent of psychological function and were not associated with biochemical markers of primary hyperparathyroidism.

The results of this study could facilitate future research into brain regions specifically affected in primary hyperparathyroidism. “We plan to use functional MRI to evaluate this phenomenon further,” Walker concludes.

Vicky Heath

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