

Abstract

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Low serum levels of 25-hydroxyvitamin D (25-OHD) among psychiatric out-patients in Sweden: Relations with season, age, ethnic origin and psychiatric diagnosis.

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OBJECTIVE AND METHODS: In a chart review at a psychiatric out-patient department, latitude 59.3 degrees N, a sample of patients with tests of serum 25-hydroxy-vitamin D (25-OHD) and plasma intact parathyroid hormone (iPTH) was collected, together with demographic data and psychiatric diagnoses. During 19 months, 117 patients were included.

RESULTS: Their median 25-OHD was 45nmol/l; considerably lower than published reports on Swedish healthy populations. Only 14.5% had recommended levels (over 75). In 56.4%, 25-OHD was under 50nmol/l, which is related to several unfavourable health outcomes. Seasonal variation of 25-OHD was blunted. Patients with ADHD had unexpectedly low iPTH levels. Middle East, South-East Asian or African ethnic origin, being a young male and having a diagnosis of autism spectrum disorder or schizophrenia predicted low 25-OHD levels.

CONCLUSIONS: Hence, the diagnoses that have been hypothetically linked to developmental (prenatal) vitamin D deficiency, schizophrenia and autism, had the lowest 25-OHD levels in this adult sample, supporting the notion that vitamin D deficiency may not only be a predisposing developmental factor but also relate to the adult patients' psychiatric state. This is further supported by the considerable psychiatric improvement that coincided with vitamin D treatment in some of the patients whose deficiency was treated.

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