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Valproic acid-induced hair color change in an elderly male

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Letter to the editor: Valproic acid (VPA) is commonly used in the treatment of various seizure disorders and psychiatric disorders, including bipolar disorder and manic psychosis. Among the many side effects reported in relation to VPA therapy, alopecia is a well-known phenomenon [1]. While both bleaching (from black or brown to blond) [2, 3] and darkening (from blond to dark) [4] of the hair have been reported, the number of reported cases are small.

This time we describe the case of an elderly male patient in whom a change in hair color was attributed to the use of VPA. To the best of our knowledge, this is the first report of hair color change due to VPA in an elderly patient. Written informed consent for publication was obtained from the patient and his family.

Case report: An 86-year-old man diagnosed with manic disorder was admitted to our acute psychiatric ward due to irritable mood, outbursts of anger, hostility, violent behavior, wandering outside, overspending, and insomnia. He had a history of hypertension and mild hyperglycemia, and was currently receiving irbesartan at 100 mg/day and amlodipine at 5 mg/day. He had no prior history of psychiatric illnesses, and no other factors likely to cause a manic state were identified. No specific findings were seen in physical and laboratory examinations. At this point, before starting therapy, his hair color was gray. Given his irritability, we prescribed VPA at 200 mg/day. We also prescribed risperidone at 2 mg/day for 15 days, but only a limited effect on psychotic symptoms was seen. We therefore changed the anti-psychotic regimen to chlorpromazine, starting at 37.5 mg/day and titrating up to 187.5 mg/day. Moderate improvement was then seen in psychotic symptoms. After 2 months, the patient was discharged from our hospital. By 3 months after discharge, full remission of psychotic symptoms had not been achieved. We changed the anti-psychotic medication to zotepine at 40 mg/day. Five months after discharge, he showed mild irritability. His psychotic symptoms were improved after increasing the dosage of VPA to 300 mg/day.

Ten months after increasing the dose of VPA, hair color on both sides of the head changed from gray to black. No other medical illness or drugs was identified that might explain this condition. The patient had never had any similar experiences previously. There were no other characteristics change of hair (e.g. volume, thickness, and straight vs. curly) and color of other body hair (e.g. beard and chest hair). Serum VPA level was 34.0 μg/ml. His hair has remained black during subsequent follow-up.

While the mechanism by which VPA induces the change in hair color remains unclear, one of the potential reasons is a high degree of cell proliferation caused by VPA [3]. Cosmetic side effects carry a risk of poor compliance, so clinicians should be aware of the potential for cosmetic side effects of VPA on hair.

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CONFLICT OF INTEREST

None

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