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Letter to the Editor / Editöre Mektup

Agomelatine May Alleviate Valproate Induced Hair Loss

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Dear Editor,

Mood stabilizers are frequently used agents in clinical practice and have various side effects (1,2). One of these side effects is hair loss. Medication induced hair loss may cause a diffuse and non-scarring alopecia that might result from a variety of psychopharmacological agents. Valproate causes hair loss in about 12% of patients. Hair loss can be seen in up to 19% of the patients treated with lithium and less than 6% of carbamazepine users (3). There are some management options for medication induced hair loss, like practical advices on daily hair care (using mild shampoos, avoiding the use of hair dryer and dyes) and taking mineral supplemens (zinc, magnesium), but most of them are not effective enough (4). Even though this adverse effect is usually reversible by discontinuation of the medication, it can be a distressing state for the patients and may lead to noncompliance to treatments.

Agomelatine is an efficacious and well tolerated antidepressant which has a unique pharmacological profile. It has MT1 and MT2 melatonin receptor agonist actions and selective serotonin 5-HT2C receptor antagonism. Unlike other antidepressants, agomelatine does not cause severe gastrointestinal discomfort, weight gain, sexual dysfunction and insomnia due to its pharmacological profile (5). There is also only little evidence showing that agomelatine is related to an increased risk of switching to mania if administered in combination with a mood stabilizer (6). A 27 year-old male patient with bipolar II disorder who was on valproate (1250mg/day) therapy, has suffered from hair loss. Total blood count, serum ferritin, vitamin B12, and folate levels, and thyroid function tests were performed to eliminate other potential reasons of hair loss. Since there was no detectable cause to explain the hair loss, it was considered as a side effect of valproate. Meanwhile, agomelatine (25mg/day) was added to his treatment because of depressive symptoms with circadian rhythm dysregulation. The patient than reported that his hair loss stopped and even new hair began to emerge by time. He also expressed that he did not use any other vitamin or hormonal supplement to prevent hair loss. It was not possible to confirm this with any objective measurement method, but it was just based on the patient's observation. He still does not have medication-induced hair loss and is still on

the treatment that he tolerates well. Hypomanic or manic shift has not been observed during the treatment.

The physiology and growth of hair follicle consist of three phases. Anagen is the longest and most active period which includes intense mitotic activity. Catagen is a transitional phase of follicular regression. Telogen is the final and resting phase before hair follicle is shed (5). Several medications including SSRIs, mood stabilizers, beta blockers, ACE inhibitors and anticoagulants cause hair loss by interrupting telogen phase (7). Telogen effluvium (hair loss) is a result of early entry of hair follicles into resting phase, which causes premature interruption of hair growth (3).

It has recently been identified that human scalp has melatonin synthesis which regulates hair growth and pigmentation (9). It is suggested that melatonin has a cytoprotective role in hair growth cycle by downregulating apoptosis and activating DNA repair system (10). Agomelatine may alleviate hair loss by stimulating melatonin receptors. In addition to other recommended strategies, concomitant agomelatine and valproate use can be kept in mind to deal with this side effect. Since, the fact that this is a single case report is a limitation, further studies can be designed to investigate the effect of agomelatine on medication induced hair loss.

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