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Effect of Curcumin on Grey Hair Reduction

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Short Communication

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Abstract: This brief case study reports the observation of a beneficial effect of curcumin on reducing grey hair as well as the associated side effects of this drug. It also describes the dose and dosing frequency of curcumin that is needed to exert the observed efficacy without showing the side effects. This information may also be of interest to other researchers who are doing dose range studies on this compound for various purposes.
Keywords: Curcumin; Beneficial health effect; Side effects; dosing regimen

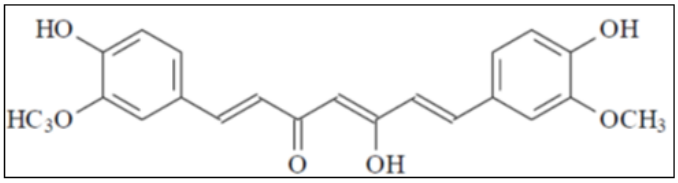
INTRODUCTION

Turmeric Curcumin is a plant which grows in Southeast Asia and has been used in dietary spice (curry powder) for a very long time. It contains four fractions of material, curcumin (Scheme 1), demethoxycurcumin, bisdemethoxycurcumin, and cyclocurcumin. Curcumin is a polyphenol antioxidant and has been shown to possess special properties such as anti-inflammatory, anti-cancer, liver detoxification, anti-Alzheimer disease, and neuro-balancing [1-4]. Therefore, it is proposed to be used as a medication and nutraceutical recently. This brief case study reports the observation of a beneficial effect of curcumin on reducing grey hair which may relate to the antioxidation property of this drug. Although having grey hair is not an illness, it is a sign of aging which can bother a lot of people. Hence, this information may be of interest to those who wish to look younger. This report also describes the dose and dosing frequency of curcumin that is needed to exert the observed efficacy without showing side effects.

THE STUDY AND RESULTS

The bioavailability of curcumin is very low following oral administration due to poor absorption and extensive first pass metabolism. Therefore, its dose is very high in commercial dietary supplement products (1000-1300 mg daily), and even higher for drug use. In this study, a 46 year-old male who is just beginning to grow grey hair was administered with 400 mg of curumin formulated in a special lipid dosage form (OTC product). This formula was claimed by its manufacturer to be able to increase the absorption of curcumin by 7 folds (equivalent to 2800 mg conventional capsules) [5] and 400 mg was the suggested daily dose on the product label. The study results are demonstrated in Table 1.The initial dosing frequency was once every five days, and not much improvement in the hair color was sighted after one month. Then the dosing frequency was increased to once every four days, and his grey hair stopped to grow after two more months. Subsequent to this, the dosing frequency was further increased to once every 3.5 days for another month, and the number of grey hair actually decreased. He also reports feeling more refreshed and the size reduction of a small gall polyp by 22% after taking curcumin. However, this patient experienced some side effects of the drug such as dry mouth and bleeding in the rectum if the dosing frequency was increased to more than once every 3.5 days or the dosing duration lengthened without adjusting the dose. So he was reluctant to pursue higher doses even though the literature data says that curcumin can be dosed safely at up to 8 g per day [1]. The dose was lowered to 200 mg administered once every 3.5 days after the fourth months to minimize any bleeding over the longer term. There are previous reports that some patients taking high doses of curcumin might develop ulcers and incompatibility with other drugs [4] and this situation should be monitored in future clinical trials. For these patients, a smaller dose may be more appropriate especially for chronic use. There was a paper that shows that a differently formulated lipid curcumin at a dose of as low as 80 mg/day would produce some measurable health effects in healthy people [6], but it did not discuss at what dose toxicity would be seen. Hence the current study provides some information regarding the toxicity of this substance which doesn't appear to have

a large therapeutic window. Finally, the physiology and medication history of different patients can vary greatly and the results of this study may only be used as a reference for optimizing individual dosing regimen.



Scheme−1: Chemical Structure of Curcumin

Table−1: Study results of using a lipid formulation of curcumin to reduce grey hair

Dose (mg)	Dosing Frequency	Dosing Duration	Observations
400	Once every 5 days	1 month	No major improvement in reducing grey hair. A pre-existing small gall polyp was seen by ultrasound.
400	Once every 5 days + Once every 4 days	1 month + 2 months	Grey hair stopped growing
400	Once every 5 days + Once every 4 days + Once every 3.5 days	1 month + 2 months + 1 month	Number of grey hair decreased
200	Once every 3.5 days	After the 4th month to an undefined time	Bleeding was observed if the dose was not lowered to 200 mg from 400 mg. The size of the gall polyp reduced by 22%.

Conflicts of Interest Statement

There is no conflict of interest in this work. There may be various specialized groups doing similar research but the author did not receive any funding from any of these sources. The findings of this work are simply observations of the product performance from a consumer stand point.

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