



# Hair Lightening of Three Hemodialysis Patients Under Heptaminol

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#### **Abstract**

**Introduction:** Dermatologic involvement in hemodialysis patients is characterized by a multitude of different aspects; pruritus, xerosis cutis, hyperpigmentation, actinic elastosis, scalp hair loss and skin infections could occur [1-7]. Alterations in the cutaneous pigmentation is mainly hyperpigmentation on sun-exposed areas and yellowish tinge to the skin. Hypopigmentation is quite rare [1,6]. Hair changes are mainly diffuse hair loss of scalp which may be related to telogen effluvium associated with severity of illness, xerosis, pruritus or due to drugs (heparin, anti-hypertensives, lipid-lowering). Sparse body hair, discoloration and dryness of hair, dry and lusterless hair are seen also [1,6,8]. A case of lightening of hair in a dialysis patient under Heptaminol was reported [9]. We report here the same finding with lightening of hair of scalp, eyebrows, eyelashes and total body hair in 3 patients on Hemodialysis and treated by Heptaminol for hypotension.

## **Case Report**

We reported three hemodialysis cases of lightening of scalp hair, body hair as well as eyebrows and eyelashes.

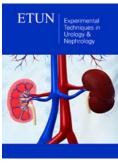
- A. The first case is a 23 years old female patient who had been on dialysis for 8 years. She had Systemic Lupus Erythematosus (SLE) and was under steroid, Azathioprine, and Midodrine HCL for hypotension. She developed her symptoms three months after starting Heptaminol for persistent hypotension.
- B. The Second case is a 34 years old female on hemodialysis for 7 years due to unknown etiology. She developed the same symptoms 2 months after initiating Heptaminol.
- C. The third case is, surprisingly, the husband of the second case, 44 years old on dialysis for 10 years due to obstructive uropathy. He developed the same symptoms 6 months after starting the drug.

Through history was taken from the three cases and complete drug history excluding any other recent drug intake or use of dyes or stains. Virology was negative in the three cases with no associated liver diseases or endocrine abnormalities. The first case regained her normal hair color 1 month after stopping Heptaminol as well as the third patient who regained his color only few days after stopping the drug. The second patient had just stopped the drug few days ago and we are following her.

## Discussion

This is the second case report of hair lightening in a Hemodialysis patient taking Heptaminol, we did not find any other case reports. Alterations in the cutaneous pigmentation is mainly hyperpigmentation on sun-exposed areas due to an increase in melanin in the basal layer and superficial dermis due to failure of the kidneys to excrete beta-melanocyte-stimulating hormone (b-MSH), and yellowish tinge to the skin due to accumulation of carotenoids and urochromes in the dermis, epidermis or subcutaneous tissue [1,6]. Hypopigmentation of skin and hair was reported in only 6 dialysis patients in a prospective study including 363 patients and the pathogenesis of these changes was poorly understood [3]. Another case study reported one hemodialysis patient who developed acquired hair and skin fairness and the cause was attributed to a disturbance in phenylalanine metabolism [10]. Many drugs were identified to cause lightening of hair such as Chloroquine, Interferon alpha, Phenols, Benzoyl peroxide, Etretinate, Phenylthiourea and Triparanol [11] (Figures 1-5).





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Figure 1:

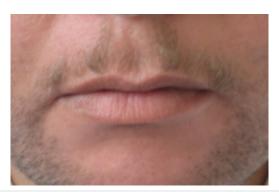


Figure 2:



Figure 3:



Figure 4:



Figure 5:

## Conclusion

To our knowledge, no cases with such changes were reported with non-hemodialysis patients receiving Heptaminol, which suggests a combined effect of Heptaminol and changes in hair structure, melanin production altered by end stage renal disease, or certain trace elements deficiency with possible genetic or environmental predisposition.

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