



## RESEARCH ARTICLE

### ALBENDAZOLE INDUCED ANAGEN EFFLUVIUM- A CASE REPORT

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#### Abstract

Anagen effluvium is the abrupt loss of hair that are in their growing phase (anagen) due to an event that impairs the mitotic or metabolic activity of hair follicle. We are reporting a female patient presenting with sudden onset of hair fall since one week. She has history of usage of albendazole 400mg twice in a day for 2 months for hydatid cyst in liver. No history of any other risk factors for acute, severe hair fall. On examination, diffuse thinning of hair without scarring was noted over scalp. Trichogram shows dystrophic anagen hairs, confirming the diagnosis of anagen effluvium.

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#### Introduction:-

Anagen effluvium is a non-scarring alopecia of sudden onset. Although anagen effluvium is commonly associated with chemotherapy and radiation to the head and neck, other causes of anagen effluvium are: severe protein energy malnutrition, pemphigus vulgaris, and alopecia areata. Other medications that can rarely cause anagen effluvium include bismuth, levodopa, colchicine, cyclosporin, anticoagulants and antiparasitic drugs like albendazole<sup>3</sup>. Albendazole causes severe alopecia with preferential sparing of the occipital scalp and premature abrupt termination of anagen leading to shedding of dystrophic or broken hairs.<sup>4</sup>

#### Case Report

A 50 year old female patient came with chief complaint of sudden onset of diffuse hair fall since one week. Amount of hair fall was two handfuls since 4 days. History of usage of albendazole 400mg twice a day since 2 months for hydatid cyst in liver. No history of any physical or psychological stress factors. No history of exposure to radiation or chemotherapy or intake of any other drugs causing anagen effluvium. No history of any systemic diseases like systemic lupus erythematosus or secondary syphilis [causes of peribulbar inflammation]. On examination, there is diffuse decrease in the density of hair over scalp without erythema, scaling, atrophy or scarring. Hair pull test was positive. Laboratory tests like serum iron, ferritin, vitamin B12, thyroid profile were normal. Trichoscopy shows honeycomb pattern with variable hair density. Trichogram shows dystrophic anagen hairs.

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**Figure 1:-** Patient With Hair Lost In A Span Of One Week.



**Figure 2:-** Honeycomb Pattern On Trichoscopy.



**Figure 3:-** Anagen Hair On Trichogram.

### Discussion:-

Albendazole is a benzimidazole derivative used in the treatment of hydatid cysts and other parasitoses. The most common side effects of albendazole are abdominal pain, nausea, vomiting and elevated liver enzymes. Rare side effects are alopecia and cytopenias, reversible on stopping the drug. The primary mechanism in alopecia and cytopenias is inhibition of microtubule polymerization binding to  $\beta$ -tubulin<sup>2</sup>. Drug-induced hair fall might be one of the most important causes of acute and severe hair fall. Soon must not only rule out the most common causes like chemotherapy, should also rule out the history of intake of rare drugs causing anagen effluvium like levodopa, anticoagulants, cyclosporine, albendazole, colchicine. Henceforth we are reporting this case of anagen effluvium as a rare side effect of albendazole.

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