

Progressive trichomegaly

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CASE REPORT

A 62-year-old woman presented with a four-week history of progressive growth of her eyelashes that induced visual discomfort and inconvenienced her while blinking. Her medical history consisted of hypertension, hyperuricaemia and obesity. The diagnosis of T₃N₂CM₀ squamous cell carcinoma of the oropharynx had been made in this patient and she was treated with radiotherapy plus concomitant cetuximab. Radiotherapy was delivered with concomitant boost technique, lateral parallel opposed fields to the primary tumour and upper neck (70 Gy/40 fractions/42 days). Cetuximab was administered one week before radiotherapy at a 400 mg/m² loading dose, followed by 250 mg/m² weekly during radiotherapy. She noted a change in her eyelashes within several weeks of starting the drug. Examination of her ocular adnexa demonstrated coarse, brittle, irregular and aberrant bilateral eyelash growth (*figure 1*) without associated hypertrichosis. The rest of physical examination was within normal limits. She had not had any other recent changes in her medications and denied application of cosmetic products. Laboratory tests did not reveal thyroid hormones abnormalities.

Figure 1. Extraordinarily long eyelashes, 25 to 35 mm, after cetuximab therapy



WHAT IS YOUR DIAGNOSIS?

See page 36 for the answer to this photo quiz.

DIAGNOSIS

The recent development of progressive trichomegaly during treatment with epidermic growth factor receptor (EGFR) inhibitor led us to make the diagnosis of acquired trichomegaly of the eyelashes induced by cetuximab.

Trichomegaly, the excessive growth of eyelashes, is a relatively rare cosmetic disorder that has been described as part of congenital syndromes, in human immunodeficiency virus 1 infection, associated with an autoimmune disease, or after certain drugs such as latanoprost, phenytoin, zidovudine, penicillamine, cyclosporine and interferon alpha. Other described causes of acquired trichomegaly include porphyria, malnutrition, anorexia nervosa, hypothyroidism, and pregnancy.

Recent communications have reported that EGFR inhibitors used in the treatment of certain malignancies can also lead to symptomatic adnexal and ocular surface changes.¹⁻⁴

EGFR inhibitors are a new class of biologically targeted anticancer agents recently introduced in the management of cancers unresponsive to standard chemotherapeutic agents. Cetuximab has been recently approved by the US FDA for head and neck squamous cell carcinoma, in association with radiotherapy. During treatment with EGFR inhibitors, changes of the hair can be noticed.

Trichomegaly of the eyelashes has been described in association with cetuximab,¹⁻³ erlotinib⁴ and gefitinib. In pathogenesis, EGFR inhibition results in dysregulated

keratin gene expression within the hair follicle and results in premature maturation (terminal differentiation) of the epithelial cells of the hair follicle causing the observed trichomegaly.²

In our case, trichomegaly of the eyelashes was reported after starting cetuximab with complete regression of these symptoms two months after stopping administration of cetuximab; the patient did not receive other trichomegaly-inducing drugs. These arguments are in favour of the relationship between cetuximab and trichomegaly. Cetuximab can be added to the list of drugs responsible for trichomegaly of the eyelashes.

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