A 48-year-old nonsmoking Asian woman presented with cough 3 years previously. Computed tomography of the thorax (panel A) showed possible multisegmental pneumonia in the right lung, and antibiotics were initiated. Because there was no clinical or radiologic improvement, bronchoscopy was performed and confirmed well-differentiated adenocarcinoma of the lung, which was deemed to be unresectable. The epidermal growth factor receptor mutation status of the tumor was negative. The patient received 6 cycles of carboplatin, paclitaxel, and bevacizumab; the disease stabilized, and subsequently maintenance therapy with the tyrosine kinase inhibitor erlotinib was initiated due to her phenotype and despite her negative epidermal growth factor receptor mutation status. Interval computed tomography of the thorax (panel B) showed clear response to erlotinib therapy; thus, the patient continued this medication for almost 2 years even though she developed hirsutism (panel C), mild rash, and trichomegaly (panels D and E) that required regular trimming of her eyelashes. Results of hormonal studies were within normal levels. Ultimately, the patient’s lung cancer progressed, and erlotinib use was discontinued. Single-agent pemetrexed was initiated, and the hirsutism, skin rash, and trichomegaly resolved during the subsequent 6 months.

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