In 2008, after 20 months on cetuximab, chest CT showed a new solitary lung metastasis which was resected, and she continues to remain disease-free on cetuximab.


The patient's exceptional response to cetuximab was dependent on the presence of a PIK3CA mutation which was lost in the cetuximab-refractory lung metastasis. Activating PIK3CA mutations induce an amphibulin/EGRF/ERK signaling axis in TNBCs that can be inhibited by EGFR blockade. Loss of PIK3CA function in the patient's TNBC may have contributed to her exceptional response as EGRF inhibition decreases non-homologous end joining, which can be lethal in the setting of homologous recombination deficiency. However, it is unclear whether defective homologous recombination function in a PIK3CA-mutant TNBC is required to allow an exceptional response to cetuximab. Preclinical studies to explore this question would be of interest.

A high p-AR expression did not preclude the development of an exceptional response to cetuximab. It is unknown whether defective homologous recombination function in a PIK3CA-mutant TNBC is required to allow an exceptional response to cetuximab. Preclinical studies to explore this question would be of interest.