

ELANE neutropenia and solid tumors: 4 cases from the French severe chronic neutropenia registry

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September 24, 2021

Abstract

Neutropenia related to ELANE gene mutations predisposes to infection and leukemia/ myelodysplasia, but little is known about the predisposition to cancer. Among a cohort of 149 patients, we identified four with malignant solid tumors (papillary thyroid cancer, anal squamous cell cancer, papillary renal cell carcinoma, and adrenocortical carcinoma), all after the age of 25 years. Three occurred in cyclic neutropenia while 1 occurred in severe chronic neutropenia (among 49 and 100 patients, respectively). A previous radiotherapy was identified as risk factor in one patient. Moreover, among 18 other patients that underwent hematopoietic stem-cell transplantations, none developed a cancer.

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