C-7

Risk of Myelodysplastic Syndrome/Acute Leukemia with Sequential Capecitabine/Temozolomide and 177Lu-Dotatate

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BACKGROUND

The treatment landscape for neuroendocrine tumors includes alkylating-agent chemotherapy and peptide receptor radiotherapy (PRRT) with 177Lu-Dotatate. The risk of MDS/AML associated with 177Lu-Dotatate is approximately 2-3%. Several small prior studies have suggested substantially higher rates of MDS/AML (approximately 10%) in patients who have also received alkylating agent chemotherapy with streptozocin or temozolomide, either combined with PRRT or sequentially. We designed a study to determine whether sequential treatment with alkylating chemotherapy and PRRT poses an increased risk of developing MDS/AML.

METHODS

Retrospective study of all patients with advanced NENs treated at the Moffitt Cancer Center between 1/2008 and 9/2019 who received treatment with CAPTEM.

RESULTS

462 patients received treatment with CAPTEM, among whom 49 received also received PRRT. 5 patients developed MDS/AML, all of whom had also received both CAPTEM and PRRT. None of the patients who received CAPTEM chemotherapy without PRRT developed a long-term hematological malignancy.

CONCLUSIONS

10% of patients who received both CAPTEM and PRRT developed MDS or AML, a risk that is higher than that associated with PRRT alone. This cumulative risk needs to be considered when sequencing treatments in NETs.

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