

Use of Capecitabine in Refractory Metastatic Medullary Thyroid Carcinoma

Dear Editor:

Medullary thyroid carcinoma (MTC), an uncommon tumor that occurs in ~5% of thyroid cancers, responds poorly to nonsurgical therapy (1,2). Radioactive iodine does not concentrate in MTC cells and chemotherapy is often disappointing (1). Doxorubicin is frequently used, however, the response rate is around 10% to 20% of the cases (2). In metastatic MTC, the National Cancer Care Network (NCCN) recommends dacarbazine-based therapy, supported by small studies (1,3). Additionally, due to the lack of data regarding outcome alteration, the NCCN suggests including the patient in a clinical trial (1). Sorafenib, an oral agent that selectively targets RET tyrosine kinases, represents a particularly promising drug (4), but its routine use needs further studies.

We report a 37-year-old Brazilian man diagnosed in December 2003 with MTC (pT3pN1M0) who underwent total thyroidectomy and lymph node dissection with adjuvant radiation. In December 2004 he presented locally unresectable recurrence and was submitted to palliative chemotherapy (dacarbazine 200 mg/m², IV, days 1 to 5 plus fluorouracil 450 mg/m², IV, days 1 to 5, in a 3-weekly regimen). With the disease progression after 12 months, second-line chemotherapy was performed with doxorubicin (75 mg/m², IV, day 1, a 3-weekly regimen, during seven cycles). In January 2007, oral capecitabine (1000 mg/m², twice daily, on days 1 to 14) was started in a 3-weekly regimen because of bulky cervical, mediastinal, left axillary, diffuse lung nodules and dry cough, weight loss, watery diarrhea, and cervical pain. After four cycles of capecitabine, he showed remarkable symptomatic improvement with decreased diarrhea and pain, enhanced appetite, and lower carcinoembryonic (CEA) level. He is now undergoing the eighth cycle of capecitabine with disease stabilization as shown by tumor diameters on clinical exams and chest radiograph, stable CEA level, better quality of life, and just one episode of grade-1 hand-foot syndrome.

Recently, Gilliam *et al.* (5) reported three patients diagnosed with metastatic MTC and treated with oral capecitabine, which is converted to the active metabolite 5-fluorouracil, preferentially in malignant tissues, by thymidylate phosphorylase. The authors found two patients with disease response and one of them with marked decrease in CEA level. These findings suggest that capecitabine is a reasonable option with clinical benefit, disease stabilization, and tolerable adverse effects.

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