Eribulin in “Field Practice”: More from the Italian Experience

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Breast cancer is the most frequent cancer in women, with an estimated 1.67 million new cases diagnosed in 2012 [1]. Metastatic breast cancer (MBC) is still associated with a poor prognosis. Therapy of MBC aims at controlling symptoms while minimizing toxicities in order to prolong survival and maintain a good quality of life.

For patients with HER2-negative breast cancer progressing after first-line chemotherapy no single optimal option has been established. However, use of sequential monotherapy is recommended.

Eribulin mesylate is a synthetic analog of halichondrin B, a natural compound isolated from a marine sponge. The primary mechanism of eribulin is associated with classical antimitotic effects. Specifically, eribulin is able to induce irreversible mitotic block and apoptosis by inhibiting the polymerization of microtubules [2]. Preclinical evidence suggests that eribulin shares other effects determining a shift from mesenchymal to epithelial phenotypes via reversal of epithelial-mesenchymal transition state to mesenchymal-epithelial transition [3].

Due to a unique binding site on tubulin, eribulin can be used to overcome taxane resistance and can be pre-

scribed in patients progressing after standard treatment with anthracycline- and taxane-containing regimens [4]. It has been approved in many countries for the treatment of patients with locally advanced breast cancer or MBC who have progressed after at least one chemotherapeutic regimen for advanced disease. Prior therapy should have included an anthracycline and a taxane in either the adjuvant or metastatic setting unless patients were not suitable for these treatments [5].

The efficacy of eribulin has been demonstrated in the pivotal phase III EMBRACE trial [6], and was confirmed in other clinical studies [7]. The reporting of well-conducted field practice experiences has major relevance in the oncology setting, since they can show the effectiveness of a treatment in an unselected population of patients [8].

Following previous successful similar publication efforts, the experiences of Italian colleagues on the field practice use of eribulin for the treatment of MBC is reported in this supplement. In particular, 2 clinical cases of long responses, 2 retrospective analyses in Italian hospitals (one also focusing on predictive factors of response) and an experience in patients with multiple liver metas-

tases confirm efficacy and tolerability of eribulin in MBC in real world. A case report on the role of eribulin in brain metastases and an experience of eribulin in renal dysfunction requiring dialysis offer further information in clinical situations not included in clinical trials but important for specific groups of patients in our daily clinical activity.

Disclosure Statement

The authors declare that they have no conflicts of interest.

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