Osteonecrosis of the Jaw and the Use of Antiangiogenic Agents: Just an Association?

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We read with interest the article by Estilo et al. [1] that appeared in The Oncologist 2008;13:911–920 regarding osteonecrosis of the jaw (ONJ) in patients with advanced cancer treated with bisphosphonate therapy. One of the hypotheses regarding development of ONJ is inhibition of capillary angiogenesis [2]. The authors commented that their analysis showed a negative association between the use of antiangiogenic agents and development of ONJ. Reference was made to our study that showed an increased incidence of ONJ using docetaxel, prednisone, thalidomide, and bevacizumab in patients with metastatic castration-resistant prostate cancer [3]. An updated analysis of this trial showed that the incidence of ONJ was 18.3% (95% confidence interval, 9%–28%), in 11 of 60 patients enrolled [4]. Although the drug regimen used in this trial is experimental, and variable contributions from the use of i.v. bisphosphonates and antiangiogenic agents are indistinguishable, we hypothesized that the addition of agents that target angiogenesis could potentiate an additive effect to the known antiangiogenic properties of zoledronic acid [5]. In fact, the same authors recently reported two patients who developed ONJ after receiving bevacizumab, without a history of antecedent bisphosphonate use [6]. Thus, these findings are of clinical relevance, especially in the era of targeted antiangiogenic therapy, when these agents, either bisphosphonates or antiangiogenic drugs, are clinically moving forward from the metastatic to the adjuvant setting.

REFERENCES


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