Blood pressure monitoring in patients receiving bevacizumab

We have read with great interest the prospective study by Shah et al. [1] assessing the safety of short infusions of bevacizumab. The authors report similar rates of proteinuria and hypertension in patients receiving the standard infusion regimen (over 90, 60 then 30 min), compared with shorter administrations with an infusion rate of 0.5 mg/kg/min.

Although we agree with Shah et al. that shorter infusions appear safe in terms of short-term reactions as well as cumulative vascular toxic effects [2, 3], we would like to point out potential weaknesses of this prospective study.

First, the rhythm of assessment of blood pressure is not detailed. We have previously shown that assessing blood pressure only before each infusion detects significantly less cases of hypertension than daily blood pressure monitoring did [4].

Second, the authors do not mention the use of a validated blood pressure measurement device, as recommended in recent international recommendations [5].

Third, hypertension grading used in this study was based on NCI-CTC v3.0, with a modified definition for grade 4 hypertension. As well, we have previously shown that NCI-CTC v3.0 allowed the detection of bevacizumab-induced hypertension in significantly fewer cases than the ESH (European Society of Hypertension) classification did [5]. Notably, the recent NCI-CTC v4.0, which was not available at the time of the study by Shah et al., is quite similar to the ESH classification.

As a consequence, we should keep in mind that the proportion of patients developing hypertension in both the prospective and retrospective arms of this study may be under-estimated.

The use of intensive blood pressure monitoring and the recent NCI-CTC v4.0 classification for hypertension grading should be generalized in further studies of hypertension induced by anti-vascular endothelial growth factor (VEGF) agents, as stressed by recent recommendations. Moreover, these tools should also be implemented in routine clinical practice, in particular in real-life populations of patients, as seen in the study by Shah et al. (with up to 50% of patients receiving anti-hypertensive drugs before initiation of bevacizumab).

R. Coriat1,*, M. Dhooge1, C. Brezault1, S. Chaussade1 & O. Mir2

1Gastroenterology Unit, Hôpital Cochin, AP–HP, Université Paris Descartes, Sorbonne Paris Cité, Paris
2Department of Medical Oncology, Institut Gustave Roussy, Villejuif, France

(*E-mail: romain.coriat@cch.aphp.fr)

disclosure

OM has acted as a paid consultant for Roche, Pfizer and Servier. RC has acted as a paid consultant for Roche, Novartis, Merck and Sanofi. All remaining authors have declared no conflicts of interest.

references


doi: 10.1093/annonc/mdt022
Published online 13 February 2013

Response to letter titled: blood pressure monitoring in patients receiving bevacizumab

Our prospective, observational study was designed to evaluate shorter bevacizumab infusions and the risks of proteinuria and hypertension. As mentioned in the study, blood pressure was assessed before every bevacizumab therapy. A study by Mir et al. suggested that home-based twice-daily blood pressure monitoring may provide a more accurate assessment of the incidence of hypertension compared with blood pressure measured in the clinic [1]. In that study, daily blood pressure monitoring was able to detect a higher incidence of grade 1 hypertension. However, the incidence of ≥grade 2 hypertension was similar between daily-home- and clinic-based monitoring. Daily blood pressure monitoring warrants further investigation. To our knowledge, none of the current published hypertension guidelines recommend daily blood pressure monitoring. Self-home monitoring is recommended by JNC 7 and European Society of Hypertension (ESH), but these guidelines do not recommend the frequency of self-home monitoring.