ADJUSTED COMPARISON BETWEEN ELOTUZUMAB AND CARFILZOMIB IN COMBINATION WITH LENALIDOMIDE AND DEXAMETHASONE AS SALVAGE THERAPY FOR MULTIPLE MYELOMA PATIENTS.


1Bioctecnology Research Unit, AO of Cosenza, Cosenza, Italy; 2Hematology and Bone Marrow Transplant Unit, Hemato-Oncology Department, Augusta Victoria Hospital, East Jerusalem, Israel; 3IRCCS Azienda Ospedaliero-Universitaria di Bologna, Istituto di Ematologia “Seràgnoli”, Bologna, Italy; 4Dipartimento di Medicina Specialistica, Diagnostica e Sperimentale, Università di Bologna, Bologna, Italy; 5Division of Hematology, Azienda Policlinico-OVE, University of Catania, Catania, Italy; 6Department of Hematology and Bone Marrow Transplant, Hospital Card. G. Panico, Tricase (LE), Italy; 7Hematology Unit, Ospedale Cardarelli, Napoli, Italy; 8Division of Hematology, University of Torino, AOU Città della Salute e della Scienza di Torino, Italy; 9Hematology and Bone Marrow Transplant Unit, Azienda Socio-Sanitaria Territoriale-Papa Giovanni XXIII, Bergamo, Italy; 10Hematology Division, Department of Hematology-Oncology, IRCCS Fondazione Policlinico San Matteo, Pavia, Italy; 11Department of Hematology, Businco Hospital, Cagliari, Italy; 12Istituto di Ematologia, Università Cattolica, Fondazione Policlinico Gemelli IRCCS, Roma, Italy; 13Department of Biomedical Science, University of Bari "Aldo Moro" Medical School, Internal Medicine "G. Baccelli", Policlinico, Bari, Italy; 14Hematology, AUOP "Federico II", Naples, Italy; 15Department of Hematology, Hospital Perrino, Brindisi, Italy; 16Hematology Unit, Department of Hematology-Oncology and Radiotherapy, Great Metropolitan

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the Version of Record. Please cite this article as doi: 10.1111/EJH.13723

This article is protected by copyright. All rights reserved
This article is protected by copyright. All rights reserved
This current clinical practice study's overall results demonstrate that KRd therapy offers a superior outcome than EloRd.

Abstract

The lack of a randomized trial comparing carfilzomib (K) versus elotuzumab (Elo) associated with lenalidomide and dexamethasone (Rd) prompted us to assess the relative usefulness of one triplet over the other.
Five independent retrospective cohorts of 883 relapsed/refractory multiple myeloma (RRMM) patients, including 300 EloRd and 583 KRd cases, outside clinical trials, entered this non-randomized comparison. KRd cohort accounted for a higher incidence of younger patients, cases with >3 lines of therapy, already exposed to lenalidomide, International Staging System (ISS) stage III, and abnormal lactic dehydrogenase (LDH) level compared to EloRd cohort. Moreover, cytogenetic risk categories, detected in roughly one-third of cases, were equally distributed between the two therapy arms.

The probability of CR+VGPR response was significantly higher in KRd (n=314, 53.9%) than in EloRd patients (n=111, 37.0%). Likewise, the cumulative incidence function of CR+VGPR, taking into account the competitive risk of death, was significantly higher in KRd arm patients than those in the EloRd arm (P=0.003). Moreover, KRd treatment significantly reduced the progression or death risk by 46% in an adjusted multivariate analysis (HR: 0.54, 95% CI 0.42-0.69, P<0.0001).

Finally, in an adjusted illness progression/death model, the effect of KRd versus EloRd was of higher magnitude among those who achieved CR+VGPR (-39% hazard ratio reduction, P=0.02) than among those who achieved <VGPR (-29% hazard ratio reduction, P=0.007).

With limitations characteristic to any retrospective analysis, this current clinical practice study's overall results demonstrated potential benefits of KRd therapy compared to EloRd. This observation may help the daily clinical practice.