Young Fellow and Best Abstract Presentations

Title: Treatment of relapsed/refractory multiple myeloma with Ixazomib and Daratumumab, the real-life experience from a regional hospital.

Presenter: Dr Justin Ka-Shu LI, Hong Kong

Background: There are many novel therapeutic agents developed for the treatment of refractory/relapsed multiple myeloma (RRMM). However, as these agents are still relatively new to use in the local clinical setting, it is of interest to review the local experience of its efficacy and safety profile. This study focuses mainly on the use of Ixazomib and Daratumumab, which are the two most used novel agents in Tuen Mun Hospital (TMH).

Methods: RRMM patients from TMH who have received Ixazomib or Daratumumab as part of their salvage therapy from September 2016 till July 2019 were retrospectively reviewed. Baseline characteristics, treatment details, response outcome, adverse events and survival data were analyzed.

Results:
Ixazomib – 23 patients were reviewed. 47.8% of them had ISS III disease at diagnosis and 33.3% had high risk cytogenetic abnormalities detected by FISH. More than half of them had received 2 or more lines of prior treatment. All patients had prior exposure to bortezomib with 39.1% showing evidence of disease progression within 6 months of treatment and 26.1% were primary refractory to bortezomib. All had prior exposure to an immunomodulatory drug therapy, in which 30.4% had prior exposure to lenalidomide (57.1% refractory) and 21.7% had prior exposure to 2 or more immunomodulatory drugs. 30.4% had prior autologous stem cell transplantation. Treatment combination included IRD (39.1%), ICD (13%) or other combinations (47.8%). The median number of cycles of Ixazomib used was 5 (1-37) and the median length of follow up was 10 months (2-37). Overall, 56.5% were able to achieve a response of PR or better. Amongst those achieving VGPR or better response (53.8%), 42.9% had underlying high risk cytogenetic abnormality. 78.3% of our patients have experienced grade 3 or higher adverse events (AEs). The most common non-hematological AEs were diarrhea (with only 13% having grade 3 or higher severity). Hematological AEs were more common in our patients with 30.4%, 56.5% and 65.2% having grade 3 or higher anemia, neutropenia and thrombocytopenia respectively. 65.2% had discontinued treatment with Ixazomib during the study period with more than half due to disease progression. 69.6% had disease progression and 52.2% died during the follow up period. The median progression free survival (PFS) was 10 months and the median overall survival (OS) was 23 months.

Daratumumab – Overall 9 patients were reviewed. 66.7% had ISS III disease at diagnosis and 37.5% had high risk cytogenetic abnormalities. More than 60% had use 2 or more lines of prior therapy. All had prior exposures to bortezomib, of which 77.8% were refractory. More than 60% of our patients had prior exposures to thalidomide and lenalidomide, amongst which 75% were refractory to lenalidomide. 22.2% had prior autologous stem cell transplantation. The median number of doses of Daratumumab used was 10 doses (2-23) and the median length of follow up was 6 months (1-17). 44.4% of our patients had achieved PR or better response, with 1 achieving VGPR and 1 achieving CR. Interestingly both had underlying high risk cytogenetic abnormalities. 77.8% have experienced grade 3 of higher severity AEs and majority were hematological in nature. Non-hematological AEs including infusion reaction, pneumonia and sepsis were mostly limited to grade 2 or less severity. 88.9% had discontinued Daratumumab treatment and the most common cause was disease progression (37.5%). 77.8% had disease progression and had died during the follow up period. The median PFS and OS were 5 months and 7 months respectively.

Conclusion: Ixazomib and Daratumumab have both demonstrated significant efficacy in treatment of RRMM patients, even for those that are heavily pre-treated or with underlying high risk cytogenetic abnormalities, concurring with results shown from published literatures. Adverse events, if present, were mostly tolerable and manageable with symptomatic treatments. However, due to our relatively small sample size, further collaboration/analysis with other hospitals would be helpful to further evaluate its efficacy and to determine the best sequence for use in the management of RRMM patients.