Nursing Implications for Patients with Relapsed and Refractory Multiple Myeloma Receiving Combination Therapy with Daratumumab (Darzalex™)

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Introduction

Daratumumab (DARA) is a first-in-class, human IgG1 monoclonal antibody that targets CD38, a protein that is highly expressed on multiple myeloma (MM) cells. First approved as a monotherapy, DARA has now been shown to increase length and depth of response when added to lenalidomide/dexamethasone and bortezomib/dexamethasone.

Evaluation

Prior to initiation: Prior to receiving the first dose of DARA, patients must have their blood typed and cross-matched for associated false-positive indirect Coombs tests.

Patients on DARA are at an increased risk of infusion reactions. The majority of infusion reactions occur during the first infusion or within 4 hours of starting. Approximately half of all patients will experience a reaction. There is no increased incidence of a reaction when given in combination therapy. The most common type of infusion reactions are respiratory symptoms such as cough, wheeze, larynx and throat tightness or irritation, laryngeal edema, nasal congestion, and allergic rhinitis. Patients must be pre-medicated with an antihistamine, antitrypetic, and corticosteroid. Chari et al. (2016) demonstrated that premedicating with montelukast reduces respiratory reactions by one third.

All patients should have shingles prophylaxis. For patients receiving lenalidomide, an anticoagulant must be added for blood dot prophylaxis. DARA is a monoclonal IgG Kappa antibody; its presence can be seen in SPEP and IFE. This interference can impact the determination of complete response and of disease progression in some patients with IgG kappa myeloma protein. There is a DARA interference reflex assay (DIRA) that can be utilized to abrogate interference.

Patient counseling should include discussion of the most common adverse events. Nurses should instruct patients to inform the care team if they have fever, chills, chest pain, shortness of breath, or a cough develop. Understanding DIRA interference will allow nurses to explain to patients the meaning of their lab results. DIRA positive means that serum IFE is positive for endogenous protein, thus the patient still has disease and is in VGPR. DIRA negative means that serum IFE is negative for endogenous protein and it is DARA causing an interference, thus the patient is in CR and should have a bone marrow biopsy to confirm remission.

Discussion

Because nurses are involved in administration, assessment, management of side effects, and patient education, it is imperative that oncology nurses are knowledgeable of current and emerging MM therapies.

References