

The Demography and Presence of CRAB Criteria in Newly Diagnosed Multiple Myeloma Patients in Two Treatment Centres in Sri Lanka

**R. M. P. Manel Rathnayake^{1*}, Sakunthala Jayasinghe¹,
H. R. K. K. Maddumabandara¹, S. W. D. M. T. Samarasinghe¹, Sagarika Senarath²**

¹*Department of Pathology, Faculty of Medicine, University of Peradeniya, Sri Lanka*

²*Department of Haematology, General Hospital Badulla, Sri Lanka*

**manelratnayake125@gmail.com*

The global elderly population is expected to double from year 2000 to 2030. Multiple myeloma (MM) is a disease of elderly. The incidence of MM is expected to increase in the next decade. MM has heterogeneous clinical manifestations affecting several systems of the body. The presence of CRAB criteria (hypercalcaemia, renal failure, anaemia and bone disease) and/ or three biomarkers are important for diagnosis of MM. The objective of the study is to describe the demographic data and the presence of CRAB features in MM patients in order to see organ involvement. Data were collected from clinic records of newly diagnosed MM patients of haematology clinics in Teaching Hospital Peradeniya and General Hospital Badulla during May 2016 to May 2019. Results were analysed using Microsoft Excel 2010. Seventy-nine patients were included of which 52% were female. The mean age was 66.4 years. Ninety nine percent of patients were anaemic with mild, moderate and severe anaemia detected in 19%, 48% and 30% respectively. Forty-three subjects had blood calcium level assessed of which 26% were hypocalcaemic while 19% were hypercalcaemic. The renal failure stages at presentation were 13%, 32%, 35%, 10% and 10% for stages 1, 2, 3, 4, and 5 respectively. Out of 60 patients, 78% had ESR above 100 mm/hour while 4 patients had ESR below 50 mm/hour. Out of 38 subjects in whom X-rays were done at presentation, 31(81.5%) had bony lytic lesions. The preliminary data of this ongoing study show that the presenting age is slightly early compared to world data and sex distribution is equal. Out of the 4 CRAB features, anaemia was a consistent feature and high ESR was detected in majority. Since hypocalcaemia is a prominent feature, the presence of other CRAB criteria should be sought in suspected patients in our population. Expansion of this study will be done to improve the validity of results.

Key words: Multiple myeloma, CRAB, hypocalcaemia, demography, anaemia