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654.MGUS, AMYLOIDOSIS AND OTHER NON-MYELOMA PLASMA CELL DYSCRASIAS: CLINICAL AND EPIDEMIOLOGICAL

Prevalence of MGUS in Rural Indian Population: Results of Simple (IMAGe-002A) Study

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Introduction: The incidence of monoclonal gammopathies is rising across the globe. Although the prevalence of monoclonal gammopathy of undetermined significance (MGUS) has been evaluated in two hospital-based studies in India, no data exists on its prevalence in community-based settings amongst the rural Indian population.

Objectives: To determine the prevalence of MGUS in a rural Indian population in a community-based setting.

Methods: A cross-sectional study was conducted in an agrarian village in India covering a perimeter of 24.76Km and 4588.3 hectares with an 89.2% population coverage for adults more than 45y spending 12096 man-hours as part of SIMPLe (**S**creening **I**ntervention for **M**yeloma and **P**revention of **L**ifestyl **e** diseases) study under the aegis of **I**ndian **M**yeloma **A**cademic **G**roup **e** (IMAGe) registered vide CTRI/2023/03/051220. For the complete study population, demographic details, medical history, and blood samples were collected after a thorough medical examination. Hemogram, biochemistry (Liver and renal function tests), and serum protein electrophoresis (SPEP) were universally performed in all individuals. Serum immunofixation electrophoresis (SIFE) was performed for those with abnormal SPEP graphs (those with M spike and those with abnormal bulges in beta-2 or gamma region suspicious of MGUS). Patients with monoclonal protein on SPEP or SIFE were further assessed for any features of smoldering/ multiple myeloma. The data was analyzed using JMP ver. 16.0.0.

Results: The prevalence of MGUS in the study population was 1.75%. The mean age of individuals with MGUS was 63.4±5.2y with male preponderance (60%). The mean Hb was 12.39±1.8g/dL with none of the patients having any renal dysfunction. None of the patients fit into the criteria for smoldering or multiple myeloma using IMWG criteria. Among those with MGUS, the distribution of Heavy and light chains was IgG - 83.33%, IgA - 16.67% with none having IgM/ IgD paraprotein, Kappa - 50%, and Lambda - 50%. Two individuals only had light chain MGUS.

Conclusion: Our study provides a comprehensive description of the prevalence of MGUS in a rural community setting in India. The background prevalence is much less compared to the Western (both USA ~3% and European~5%) population.

Disclosures No relevant conflicts of interest to declare.