[Abstract 18]

PRESENTING FEATURES OF IGM MGUS

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Immunoglobulin M (IgM) monoclonal gammopathy may be associated with a variety of conditions ranging from benign protein abnormalities to B-cell malignancies including lymphoma, myeloma and Waldenstrom's Macroglobulinemia (WM). Excellent reviews from Dr. Kyle's group at Mayo and Dr. Morra's group in Milan have looked at patients with IgM MGUS and followed them for their risk of progression to malignancy. These studies have followed large cohorts over a long period and have provided excellent data on risk of progression to B-cell cancer.

We have chosen a slightly different approach to understanding the nature of IgM paraproteins. In our study we have chosen to look at all patients with an IgM paraprotein documented by SPEP in our large urban serology laboratory, to understand what clinical signs and diseases are the presenting features of IgM paraproteins. We hope to understand through following the diseases associated with the development of IgM paraproteins, more about the nature of those common clinical factors relevant in understanding the etiology Waldenstrom's Macroglobulinemia.

In our initial cohort we examined 160 patients whose protein electrophoresis results within the last three years have shown an IgM paraprotein. In each case, we investigated patient demographics, laboratory records, radiologic data, pharmacologic data, oncologic history, other related medical history, and their clinical course as an ongoing IRB-approved prospective and retrospective database project. The patient pool is roughly equally divided between the sexes. The age range of the first IgM monoclonal protein detection is 38 to 93 years, with a median of 71.4 years. Fifty percent of the patients had MGUS (monoclonal gammopathy of unknown significance), and the rest had known cancer diagnosis of lymphoma (46%), macroglobulinemia (29%), myeloma (8%), chronic lymphocytic leukemia (4%), or a non-B cell malignancy (13%). Amongst the MGUS cases, 36% have renal disease, 56% have chronic infection, 36% have a documented rheumatologic illness, 4% have other autoimmune diseases, 7% have hepatitis C, and 20% have none of the above. A high maximum or starting IgM value (above the upper limit of normal by nephelometry) was found to correspond to a definite cancer diagnosis, while the height of the gamma spike on protein electrophoresis did not appear to be a predictive of known malignancy. Preservation of normal immunoglobulin levels does not distinguish MGUS from malignancy, nor is a cancer diagnosis more likely in patients with multiple monoclonal paraproteins (IgG and IgM) versus those with a single spike. The kappa and lambda chains of IgM are equally divided in our population and neither appeared more likely in the group with known B-cell cancer. Our study does not represent a completely random sample as we are a referral center for Waldenstrom's, but our medical center also has an expertise in renal diseases, rheumatologic diseases, neurologic diseases and therefore likely is otherwise an appropriate measure of a multi-cultural, multi-racial inner city medical center population.

At this meeting we will present the yearly update of this data, with particular emphasis on those patients with IgM paraproteins without overt malignancy. We are particularly interested in changes in IgM values of people being treated for their non-malignant diseases. We will also discuss the development of new clinical syndromes including (but not exclusively) overt B-cell malignancies in our population with IgM MGUS.