

## Multiple Myeloma

### Monoclonal Gammopathy of Undetermined Significance

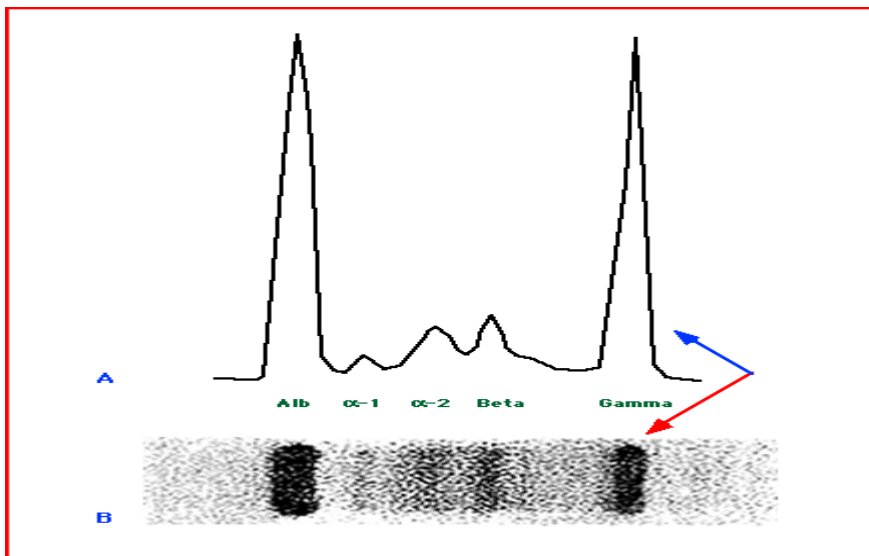
- Annual incidence risk is 1% for development of myeloma
- About 13.5% of all patients with monoclonal gammopathy have myeloma.

### Plasmacytoma

### Multiple Myeloma (features):

- Bone pain (from lytic lesions—this is why we do a skeletal survey)
- Anemia
- Renal involvement (from light chain proteinuria, amyloid, hypercalcemia, dye CAT Scan)
- Infections (esp. encapsulated organisms)
- HyperCalcemia related to bone destruction)
- \*Anion Gap can be very low due to positive charge of IgG

Diagnosis—based on a bone marrow containing more than 10 percent plasma cells plus at least one of the following: a monoclonal (M-protein) in the serum, and M-protein in the urine, or lytic bone lesions.



**Monoclonal gammopathy** Panel B: A dense, localized band (red arrow) representing a monoclonal protein of gamma mobility is seen on serum protein electrophoresis on agarose gel (anode on left). Panel A: Densitometer tracing of these findings reveals a tall, narrow-based peak (blue arrow) of gamma mobility and a reduction in the normal polyclonal gamma band. The monoclonal band has a densitometric appearance similar to that of albumin (alb), and has been likened to a church spire.

### Treatment: for patients considered transplant candidates

- VAD (Vincristine, Adriamycin, Decadron), or Thalidomide, Decadron if response
- Then Autologous Transplant

### Treatment for older patients not transplant candidates

- Melphalan, Prednisone

### Supportive Treatments:

- Zometa, Aredia (Bisphosphonates), Erythropoietin

### Prognosis

Related to Beta-2-microglobulin (B2M), Creatinine, Salmon-Durie Stage

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