Multi-clonal

The diversity of the immune system displayed can be demonstrated in this section with immunofixation of serum.

Open all sections

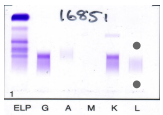
IgG(kappa) plus free kappa

Patient: 72 years old male

History: Myeloma presentation for clinical trial

Laboratory data:

All immunology parameters were within the normal range. The following were abnormal:



- IgA (0.35 g/L - decreased)
- IgM (0.06 g/L - decreased)
- Presence of IgG kappa plus free kappa

(/Images/College-MDS-only/facilities/cis/Immunochemistry/IgG(KfreeK).jpg)

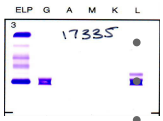
IgG(Lambda) plus free lambda

Patient: 67 years old male

History/diagnosis: Myeloma presentation

Laboratory data:

All immunology parameters were within the normal range. The following were abnormal:



- IgG (58.18 g/L, raised)
- IgA (0.09 g/L - diminished)
- IgM (0.13 g/L - diminished)
- Beta-2-Microglobulin (7.1 mg/L, raised)
- Serum creatinine (112 umol/L - borderline raised)
- Immunofix shows IgG lambda plus free lambda paraprotein

(/Images/College-MDS-only/facilities/cis/Immunochemistry/IgG(LfreeL).jpg)

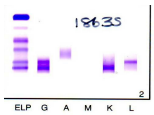
Bi-clonal Gammopathy

Patient: 75 years old male

History/diagnosis: Myeloma presentation

Laboratory data:

All immunology parameters were within the normal range.



The immunofix shows the presence of two clones - an IgG Kappa and an IgG lambda paraprotein.

(/Images/College-MDS-only/facilities/cis/Immunochemistry/IgGBiclonal1218635.jpg)

Tri-clonal Gammopathy

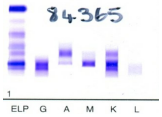
Patient: 78 years old male

History/diagnosis: Chronic lymphocytic leukaemia, progressive neuropathy and diabetes

Laboratory data:

All immunology parameters were within the normal range. The following were abnormal:

- IgG (20.94 g/L, raised)
- IgA (8.55 g/L - raised)
- IgM (19.50 g/L - raised)
- Beta-2-Microglobulin (13 mg/L, raised)
- Serum creatinine (130 umol/L)
- Serum viscosity (2.34 mPas raised)
- Serum free light chains ratio was elevated to 49.7



Serum immunofixation of demonstrates presence of a tri-clone composed of IgG Kappa, IgA Kappa and IgM Kappa paraprotein. On quantitation IgM-clone was predominate followed by the IgG and then the IgA-clone.

(/Images/College-MDS-only/facilities/cis/Immunochemistry/Tri1284365-IFIX.jpg)

© University of Birmingham 2015