13th Canadian CLL Research Meeting, Winnipeg
October 5 & 6, 2017

CLL Researchers from Canada and the USA meet yearly to discuss recent research developments. As part of the program, CLLPAG is invited to share its work and provide a patient perspective.

Overview

The programme focused on 5 topics:

- Real life experiences with *therapeutics (e.g. infection, complex treatment issues),*
- *Novel therapeutics (sequencing, transplantation*),
- Prognostic markers in CLL (*Minimal Residual Disease [MRD] using flow cytometry for disease burden/treatment tailoring*),
- CLL signaling and immunology (small *clusters with similarities in CDR3 region*), and
- CLL genetics (*familial research*).

Overall, researchers reported a huge paradigm shift in treatments reflecting the multiple types of intraclonal heterogeneity in CLL cells and related changes with time, for example:

- Proliferation fraction shows membrane phenotype changes with increased cell division with shorter time from diagnosis.
- As CLL is a "multicompartmental disease", suggestion that MRD provides an important endpoint in trials representing more accurately depth of remission than complete response (CR), and is highly prognostic of progression-free survival (PFS) and overall survival (OS).
- CLL cell targets innate immune capacity so trials with rituximab, query use of venetoclax and acalabrutinib (BTK inhibitor);
- Adverse effects vary and can limit use depending on severity, 1st or 2nd line, and age e.g. buparlisib, pentostatin, obinutuzumab.
- Kinase inhibitors vary in effect and research is examining combinations with each other or with other drugs e.g. Ibrutinib, idelalisib, rituximab, venetoclax.

People are doing well on newer targeted drugs (e.g. ibrutinib) and recruitment for newer studies has become problematic. Infections are an important adverse effect to monitor, particularly with drugs like ibrutinib.

Researchers are looking at very specific targets but conclusions are in early stages. Studies with larger samples tend to be with "heavily treated" patients while samples are small with new drugs. As study participants vary in treatment histories and the treatment periods for new drugs are also comparatively short, there are many questions with only preliminary answers for some. Example:

- Who should be on what drug?
- What is the dose?
- How long should one be on the drug?
- Can one stop and when?
- Protocols for complications e.g. atrial fibrillation, surgeries, severe infections?

Judy Watt-Watson.