Basic Health Sciences  

Poster  

Abstract ID: 80  

**Co-expression of MYC and BCL2 in diffuse large B-cell lymphoma**  

**Naznin Muhammad**\(^a\) | **Ahmad Toha Samsudin**\(^b\) | **Norlelawati A.Talib**\(^a\) | **Aung Gyi**\(^a\) | **Norra Harun**\(^c\) | **Suhaila Abdullah**\(^c\)  

\(^a\)Kulliyyah of Medicine, International Islamic University Malaysia  
\(^b\)Hospital Queen Elizabeth, Kota Kinabalu, Malaysia  
\(^c\)Tengku Ampuan Afzan Hospital, Kuantan, Pahang, Malaysia  

**Introduction:** Diffuse large B-cell lymphoma (DLBCL) is the most common type of non-Hodgkin lymphoma. The pathogenesis of DLBCL is complex because it involves at least two different pathways, a de novo pathway and a transformation pathway. **MYC** and **BCL2** oncogenes are 2 key regulators implicated in the pathogenesis. DLBCL with concurrent expression of MYC and BCL2 has been shown to be clinically aggressive and confers a worse prognosis. MYC detection by immunohistochemistry is however not performed in a routine diagnostic work up of DLBCL cases. This study examined the presence of MYC and BCL2 proteins by immunohistochemistry in patients diagnosed to have DLBCL. **Methods:** This retrospective study involved patients diagnosed to have DLBCL at Tengku Ampuan Afzan Hospital, Kuantan, Pahang (Year 2009-2011) and Queen Elizabeth Hospital, Kota Kinabalu, Sabah Malaysia (Year 2012-2014). Immunohistochemistry for MCY and BCL2 were performed on sections of formalin fixed paraffin embedded tissue blocks. **Results:** There were 91 cases analyzed. Forty-nine cases (53.8%) exhibited concurrent expression of MYC and BCL2 proteins. In about one third of the cases, positivity was confined to BCL2. In 4 cases (4.4%) only MYC was expressed while in 9 cases (9.9%) both markers were negative. Overall about 60% and 85% of the cases were positive for MYC and BCL2 respectively. **Conclusions:** Approximately half of DLBCL case studied co-express MYC and BCL2. Prospective studies to look at the clinical significance and prognostic impact of this finding are advocated.  

**KEYWORDS:** Diffuse large B-cell lymphoma, BCL2, MYC