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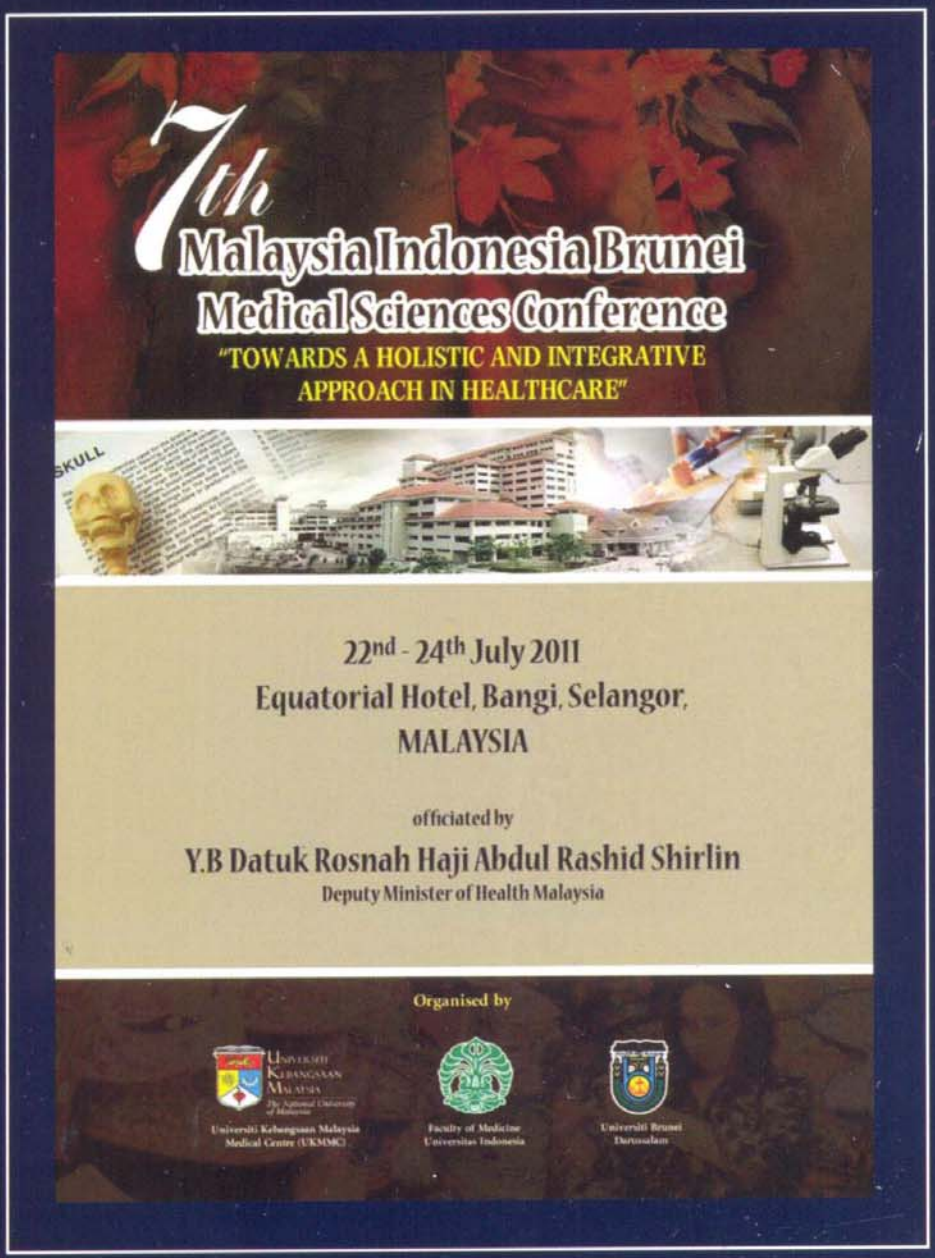

# FOLLICULAR LYMPHOMAS WITHOUT t(14;18) CHROMOSOMAL TRANSLOCATIONS EXHIBIT VARIATION IN *BCL2* PROTEIN EXPRESSION

Masir N[1], Jones M[2], Mason DY[2]

[1]*Department of Pathology, Faculty of Medicine, Universiti Kebangsaan Malaysia Medical Centre, Kuala Lumpur, Malaysia*
[2]*Leukaemia Research Immunodiagnostics Unit, Nuffield Department of Clinical Laboratory Sciences, John Radcliffe Hospital, University of Oxford, Oxford, United Kingdom*

**Background**:
The hallmark of follicular lymphoma is the t(14;18)(q32;q21) chromosomal translocation that leads to deregulation of *BCL2* expression in tumour cells. However, not all cases of follicular lymphoma express *BCL2*, nor is the t(14;18) translocation always present. Follicular lymphomas lacking the *BCL2* rearrangement are less well studied with regards to their immunohistochemical and molecular features. This study aims to investigate the *BCL2* protein expression pattern in t(14;18)-negative follicular lymphomas.

**Materials and methods:**
*BCL2* protein expression pattern was analysed in 26 cases of t(14;18)-negative follicular lymphomas (determined by FISH), using antibodies against two-different epitopes i.e., the widely-used antibody *BCL2/124* and an alternative antibody E17.

**Results**:
Two of the t(14;18)-negative cases showed evidence of *BCL2* amplification and trisomy 18. A total of 13 (50%) cases lacked *BCL2* expression. In 10 (38%) cases, the expression was heterogeneous and in only three cases (12%) the *BCL2* expression was strongly positive. These cases could thus be subdivided into three subgroups i.e., Group I: normal *BCL2* genes (i.e., no evidence of translocation or amplification), and *BCL2* protein was negative, Group II: normal *BCL2* genes but *BCL2* protein was positive and, Group III: presence of other genetic alterations i.e. *BCL2* amplification and trisomy 18, and positive for *BCL2* protein.

**Conclusion:**
This study suggest that it may be possible on the basis of staining to predict that the t(14;18) translocation is absent if a case is either negative for *BCL2* protein with different antibodies or has heterogeneous *BCL2* expression, possibly acquired through a physiological process of differentiation.

**Key words:**
follicular lymphoma, t(14;18)-negative, *BCL2* expression