

Scopus

[Search](#) [Sources](#) [Alerts](#) [Lists](#) [Help](#) [SciVal](#) [Register](#) [Login](#)

Document details

[Back to results](#) | 1 of 1
[Export](#) [Download](#) [Print](#) [E-mail](#) [Save to PDF](#) [Add to List](#) [More...](#)
[Full Text](#) [View at Publisher](#)

 Asian Pacific Journal of Cancer Prevention
 Volume 18, Issue 10, 1 October 2017, Pages 2781-2785
[Open Access](#)

p16 tumor suppressor gene methylation in diffuse large B cell lymphoma: A study of 88 cases at two hospitals in the East Coast of Malaysia (Article)

 Ridah, L.J.M.^a, Talib, N.A.^b, Muhammad, N.^b, Hussain, F.A.^c, Zainuddin, N.^a
^aDepartment of Biomedical Science, Kulliyah of Allied Health Sciences, International Islamic University Malaysia, Kuantan, Pahang, Malaysia

^bDepartment of Pathology and Laboratory Medicine, Kulliyah of Medicine, International Islamic University Malaysia, Kuantan, Pahang, Malaysia

^cDepartment of Pathology, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia

Abstract

[View references \(32\)](#)

Introduction: p16 gene plays an important role in the normal cell cycle regulation. Methylation of p16 has been reported to be one of the epigenetic events contributing to the pathogenesis of diffuse large B-cell lymphoma (DLBCL) which occurring at varying frequency. DLBCL is an aggressive and high-grade malignancy which accounts for approximately 30% of all non-Hodgkin lymphoma cases. However, little is known regarding the epigenetic alterations of p16 gene in DLBCL cases in Malaysia. Therefore, the objective of this study was to examine the status of p16 methylation in DLBCL. Methods: A total of 88 formalin-fixed paraffin-embedded DLBCL tissues retrieved from two hospitals located in the east coast of Malaysia, namely Hospital Tengku Ampuan Afzan (HTAA) Pahang and Hospital Universiti Sains Malaysia (HUSM) Kelantan, were chosen for this study. DNA specimens were isolated and subsequently subjected to bisulfite treatment prior to methylation specific-PCR. Two pairs of primers were used to amplify methylated and unmethylated regions of p16 gene. The PCR products were then separated using agarose gel electrophoresis and visualised under UV illumination. SPSS version 12.0 was utilised to perform all statistical analysis. Result: p16 methylation was detected in 65 of 88 (74%) samples. There was a significant

association between p16 methylation status and patients aged > 50 years old ($p=0.04$). Conclusion: Our study demonstrated that methylation of p16 tumor suppressor gene in our DLBCL cases is common and significantly increased among patients aged 50 years and above. Aging is known to be an important risk factor in the development of cancers and we speculate that this might be due to the increased transformation of malignant cells in aging cell population. However, this has yet to be confirmed with further research and correlate the findings with clinicopathological parameters.

Author keywords

[Diffuse large B cell lymphoma](#) [DNA methylation](#) [Methylation specific PCR](#) [p16](#)

ISSN: 15137368

Source Type: Journal

Original language: English

DOI: 10.22034/APJCP.2017.18.10.2781

Document Type: Article

Publisher: Asian Pacific Organization for Cancer Prevention

Metrics

0 Citations in Scopus

0 Field-Weighted Citation Impact

 PlumX Metrics
 Usage, Captures, Mentions,
 Social Media and Citations
 beyond Scopus.

Cited by 0 documents

Inform me when this document is cited in Scopus:

[Set citation alert >](#)[Set citation feed >](#)

Related documents

 MLL2 protein is a prognostic marker for gastrointestinal diffuse large B-cell lymphoma
 Ye, H., Lu, L., Ge, B.

(2015) International Journal of Clinical and Experimental Pathology

Hypermethylation of p15 Gene in Diffuse - Large B-Cell Lymphoma: Association with Less Aggressiveness of the Disease

Krajnović, M., Jovanović, M.P., Mihaljević, B. (2014) Clinical and Translational Science

 Quantitative analysis of CDKN2A methylation, mRNA, and p16^{INK4a} protein expression in children and adolescents with Burkitt lymphoma: Biological and clinical implications
 Robaina, M.C.S., Faccion, R.S., Arruda, V.O. (2015) Leukemia Research

View all related documents based on