



ABSTRACT

CORRELATION BETWEEN EXPRESSION OF Dll-4 mRNA WITH TYPES OF OVARIAN CARCINOMA Adryan Kalya Ndraha Khairindra*, Didik Setyo Heriyanto**, Yudha Mathan Sakti***

- * Student of Faculty of Medicine Universitas Gadjah Mada
- ** Department of Anatomical Pathology, Faculty of Medicine, Universitas Gadjah Mada
- *** Department of Orthopaedics, Faculty of Medicine, Universitas Gadjah Mada

Background:

Recent studies on ovarian carcinoma give us new insight on ovarian carcinoma classification. One study classify ovarian carcinoma into type I and type II, based on its characteristics and tumor cells. The pathways contributing to these carcinomas are complicated, however, some studies mentioned the presence and possible contribution by the genes Dll-4, which is the ligand for Notch-1. In this study, we try to investigate whether there is significant difference between the increase of Dll-4 mRNA expression between type I and type II ovarian carcinoma.

Objective:

This study aims to know the correlation between expression of Dll-4 mRNA with types of ovarian carcinoma.

Method:

29 paraffin cell block of ovarian carcinoma, consisting of 17 type I tumor samples and 12 type II tumor samples were analyzed. The RNA was extracted from the sample by using *Total RNA Mini Kit Geneaid. KAPA SYBR[®] Fast qPCR Kit* was then used to measure the expression of Dll-4 in each samples. The resulting numbers were analyzed using simple T-Test on *IBM SPSS* software.

Results:

The result shows that the mean and standard deviation of Dll-4 mRNA expression in ovarian carcinoma compared to normal ovarian tissue was elevated in both types of ovarian carcinoma. Type I tumor showing mean and standard deviation of 26.5 ± 10.73 and type II tumor of 26.77 ± 15.11 . The p-value of the analysis is 0.956

Conclusion:

There is an insignificant difference between the increase of Dll-4 mRNA in type I and type II ovarian carcinoma in terms. This concludes that Dll-4 is present and increased in ovarian carcinoma progression, but may not have enough influence to become the determinant gene that decides differentiation cancer into type I or II.

Keywords:

Dll-4, mRNA, ovarian carcinoma, type I tumor, type II tumor.



INTISARI

CORRELATION BETWEEN EXPRESSION OF Dll-4 mRNA WITH TYPES OF OVARIAN CARCINOMA Adryan Kalya Ndraha Khairindra*, Didik Setyo Heriyanto**, Yudha Mathan Sakti***

- * Mahasiswa Fakultas Kedokteran Universitas Gadjah Mada
- ** Departemen Patolog Anatomi, Fakultas Kedokteran, Universitas Gadjah Mada
- *** Departemen Ortopedi, Fakultas Kedokteran, Universitas Gadjah Mada

Latar belakang:

Studi-studi terbaru memberi pandangan tentang klasifikasi karsinoma ovarium. Sebuah studi mengklasifikasikan karsinoma ovarium menjadi tipe I dan tipe II berdasarkan jenis sel tumor dan karakteristiknya. Faktor-faktor yang berkontribusi kepada karsinoma ini salah satunya ada faktor genetik. Beberapa studi mengungkapkan adanya gen Dll-4 pada karsinoma ovarium. Studi ini menginvestigasi kemungkinan kontribusi Dll-4 dalam mendiferensiasi karsinoma ovarium menjadi karsinoma tipe I maupun tipe II

Objektif:

Studi ini bertujuan untuk mengetahui korelasi antara mRNA Dll-4 dan tipe karsinoma ovarium

Metode:

29 blok parafin jaringan karsinoma ovarium, terdiri dari 17 sampel tumor tipe I dan 12 tipe II diekstraksi mRNANYa. Pengukuran ekspresi Dll-4 dilakukan menggunakan *Total RNA Mini Kit Geneaid. KAPA SYBR[®] Fast qPCR Kit*. Hasil dianalisis menggunakan *simple T-Test IBM SPSS*

Results:

Hasil menunjukkan rata-rata dan standar deviasi ekspresi mRNA Dll-4 pada karsinoma ovarium meningkat dibandingkan jaringan ovarium normal. Tumor tipe I 26.5 ± 10.73 memiliki rerata dan standar deviasi, sedangkan tipe II 26.77 ± 15.11 . Nilai $p=0,956$.

Konklusi:

Terdapat perbedaan yang insignifikan pada peningkatan ekspresi mRNA Dll-4 pada karsinoma ovarium tipe I dan II. Hal ini menunjukkan bahwa Dll-4 meningkat di kedua tipe tumor, namun tidak bisa dikatakan sebagai faktor yang mendiferensiasi.

Kata kunci:

Dll-4, mRNA, ovarian carcinoma, type I tumor, type II tumor.