Penurunan ekspresi ARID1A pada kista endometriosis non atipik, atipik, dan clear cell carcinoma ovarii = The decrease of the ARID1A expressions in non atypical, atypical endometriosis cyst, and ovarian clear cell carcinoma

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Abstrak

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 Latar belakang: Endometriosis merupakan kelainan ginekologik yang paling sering ditemukan. Seperti halnya endometrium di uterus juga dapat terjadi berbagai perubahan pada epitel yang melapisi kista endometriosis di ovarium, antara lain metaplasia, hiperplasia, atipia bahkan perubahan ke arah keganasan. Saat ini banyak penelitian yang menghubungkan antara endometriosis dan kanker ovarium terutama jenis clear cell dan dikenal dengan istilah endometriosisassociated

ovarian carcinoma (EAOC) dan dilaporkan adanya mutasi yang menginaktifkan gen supresor tumor (ARID1A), sehingga protein BAF250a tidak diekpresikan pada Clear cell carcinoma (CCC) ovarii.
Bahan dan cara: Dilakukan pulasan imunohistokimia ARID1A pada sampel 20 kasus endometriosis non atipik, 20 kasus atipik dan 20 kasus CCC ovarii tahun 2012 hingga Maret 2015. Dari kelompok kasus CCC didapatkan 9 kasus EAOC. Selanjutnya dilihat adakah perbedaan persentase ekspresi ARID1A pada endometriosis non atipik, atipik, CCC ovarii serta endometriosis disertai CCC (EAOC).
Hasil: Pada kelompok kasus endometriosis non atipik, atipik dan CCC ada perbedaan bermakna persentase ekspresi ARID1A (uji Kruskal-Wallis p=0,0035). Selanjutnya dilakukan analisis Post Hoc uji Mann-Whitney dan didapatkan perbedaan bermakna persentase ekspresi ARID1A antara endometriosis non atipik dan atipik dengan CCC ovarii (p=0,001 dan p=0,0015). Pada kelompok kasus endometriosis non atipik, atipik dan endometriosis pada EAOC, didapatkan ada perbedaan bermakna persentase ekspresi ARID1A (Uji Kruskal-Walis p=0,011). Selanjutnya dilakukan analisis Post Hoc uji Mann-Whitney dan ada perbedaan bermakna persentase ekspresi ARID1A antara endometriosis non atipik dan atipik dengan EAOC (p=0,005 dan p=0,008).
Kesimpulan: Ekspresi ARID1A pada endometriosis non atipik dan atipik lebih tinggi bermakna dibanding CCC ovarii dan EAOC. Sehingga ekspresi ARID1A kemungkinan dapat digunakan sebagai petanda adanya transformasi ganas pada endometriosis.
ABSTRACT
 Background: Endometriosis is one of the most common gynecological abnormalities found. Endometriosis cyst in the ovary also exhibited changes in epithelial cyst just like endometrium in the uterus. Changes in the epithelial cells

also include metaplasia, hyperplasia, atyphia even changes toward malignan characteristics. Nowadays, there are some research that linked endometriosis and clear cell ovarian cancer which is known with endometriosis-associated ovarian carcinoma (EAOC) it is reported that there?s a mutation that activated tumor suppressor gene (ARID1A), so protein BAF250a is not expressed in Clear Cell Carcinoma (CCC) in the ovarium.
Materials and Methods: Immunohistochemistry staining of ARID1A were done in 20 samples of non-atypical endometriosis, 20 samples of atypical endometriosis, 20 samples of CCC in the ovarium from the year 2012 until march 2015. From the group that experienced CCC we get 9 cases of EAOC. After that, we see if there?s any difference in the percentage of ARID1A expression in nonatypical

endometrosis, atypical endometriosis, CCC in the ovarium and endometriosis with CCC(EAOC).
Results: In non-atypical endometriosis, atypical and CCC cases groups there are significant differences on the percentage of ARID1A expression (Kruskal-Walis test p=0,0035). Post Hoc analysis were done using Mann-Whitney test and there are significant differences on ARID1A expression between non-atypical and atypical endometriosis with CCC (p=0,001 and p=0,0015). In non-atypical endometriosis, atypical and EAOC groups there are significant differences on the percentage of ARID1A expression (Kruskal-Walis test p=0,011). Post Hoc analysis were done using Mann-Whitney test and there are significant differences on ARID1A expression between non-atypical and atypical endometriosis with EAOC (p=0,005 and p=0,008).
Conclusion: Expression of ARID1A in non atypical and atypical endometriosis are significantly higher compared to ovarian CCC and EAOC. So, we can say that ARID1A may be used as a marker for malignancy transformation in endometriosis.
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