Ekspresi imunohistokimia DPC4 adenokarsinoma pankreas pada sampel fine needle aspiration biopsy (FNAB) = DPC4 immunohistochemistry expression on fine needle aspiration biopsy (FNAB) of adenocarcinoma pancreas

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Abstrak

Latar belakang: Keganasan pankreas merupakan salah satu penyebab morbiditas dan mortalitas signifikan di dunia dengan 90% kasus adalah adenokarsinoma yang umumnya terdiagnosis stadium lanjut karena tidak memiliki gejala klinis spesifik dan keterbatasan dalam menegakkan diagnosis. Adenokarsinoma pankreas disebabkan oleh perubahan histologik dari neoplasma intraepitelial pankreas (PanIN) dan mutasi genetik antara lain aktivasi onkogen KRAS serta inaktivasi gen supresor tumor seperti CDKN2A/p16, p53, BRCA2 dan Small Mothers Against Decapentaplegic 4 (SMAD4) atau disebut juga Deleted in Pancreatic Cancer, locus 4 (DPC4). Mutasi DPC4 ditemukan pada 55% kasus dan relatif spesifik pada adenokarsinoma pankreas. Penelitian ini dilakukan untuk menilai ekspresi DPC4 pada adenokarsinoma pankreas dengan sampel fine-needle aspiration biopsy (FNAB) dengan tujuan meningkatkan akurasi diagnosis.
Bahan dan cara: Penelitian ini menggunakan desain potong lintang. Sampel diambil dari data arsip Departemen Patologi Anatomik FKUI/RSCM terdiri atas kelompok data berpasangan dengan 9 kasus adenokarsinoma dan 5 kasus nonadenokarsinoma dari Januari 2012-Agustus 2018 serta kelompok data tidak berpasangan dengan 10 kasus adenokarsinoma dari Januari 2017-Agustus 2018. Dilakukan pulasan DPC4 pada sampel sitologi dan histopatologik. Penilaian mengunakan persentase cut off positif >50% sel tumor.
Hasil: Ekspresi DPC4 negatif didapatkan pada 5 kasus adenokarsinoma dan 0 kasus nonadenokarsinoma data berpasangan, serta 5 kasus adenokarsinoma data tidak berpasangan. Uji Fisher s exact yang dilakukan mendapatkan hasil ekspresi DPC4 pada adenokarsinoma dan nonadenokarsinoma data berpasangan tidak berbeda bermakna dengan nilai p>0.05.
Kesimpulan: Tidak didapatkan perbedaan yang bermakna antara ekspresi DPC4 pada adenokarsinoma dan nonadenokarsinoma.
.....Background: Pancreatic malignancy is one of the causes of significant morbidity and mortality in the world with 90% of cases were adenocarcinomas which are generally diagnosed in advanced stages because there is no specific clinical symptom and limitation in making a diagnosis. Pancreatic adenocarcinoma is caused by histological changes of intraepithelial pancreatic neoplasms (PanIN) and genetic mutations including activation of KRAS oncogenes and inactivation of tumor suppressor genes such as CDKN2A/p16, p53, BRCA2 and Small Mothers Against Decapentaplegic 4 (SMAD4) or also called Deleted in Pancreatic Cancer, locus 4 (DPC4). DPC4 mutations is found in 55% of cases and relatively specific in pancreatic adenocarcinoma. This study was conducted to assess the expression of DPC4 in pancreatic adenocarcinoma using a fine-needle aspiration biopsy (FNAB) sample to increase diagnosis accuracy.
Materials and methods: This was a cross-sectional study. Samples were taken from archival data of the Anatomical Pathology Department of FKUI/RSCM consisting of paired data group with 9 cases of adenocarcinoma and 5 cases of nonadenocarcinoma from January 2012 to August 2018 and unpaired data group with 10 cases of adenocarcinoma from January 2017 to August 2018. All cytology and

histopathologic samples were stained with DPC4 antibody and evaluated using a positive cut-off> 50% of tumor cells.
Results: Negative DPC4 expression was found in 5 cases of adenocarcinoma and 0 cases of nonadenocarcinoma in paired data group, and 5 cases of unpaired data group adenocarcinoma. The Fisher s exact showed no significant difference of DPC4 expression between adenocarcinoma and nonadenocarcinoma paired data group with p value> 0.05.
Conclusion: There was no significant difference in the expression of DPC4 between adenocarcinoma and nonadenocarcinoma.