

## Perbedaan kadar fecal elastase 1 antara kanker pankreas yang resectable dan unresectable = The difference levels of fecal elastase 1 between resectable and unresectable pancreatic cancer / Abdul Rahman M.

Abdul Rahman M., author

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### Abstrak

[<b>ABSTRAK</b><br>

Latar Belakang : Pada kanker pankreas dapat terjadi obstruksi pada duktus pankreatikus yang menghambat transfer enzim dan bikarbonat ke duodenum yang menyebabkan aktifitas enzim tidak cukup adekuat untuk mempertahankan proses pencernaan secara normal yang disebut sebagai pancreatic exocrine insufficiency (PEI), yang dapat dideteksi dengan pemeriksaan kadar fecal elastase 1.

Tujuan : Mengetahui proporsi dan derajat PEI, proporsi steatore pada kanker pankreas, perbedaan kadar fecal elastase 1 antara kanker pankreas yang resectable dan unresectable dan perbedaan rerata kadar fecal elastase 1 berdasarkan stadium kanker pankreas.

Metode : Penelitian ini adalah studi potong lintang untuk menentukan perbedaan kadar fecal elastase 1 antara kanker pankreas yang resectable dan unresectable. Penelitian ini dilakukan di Rumah Sakit Cipto Mangunkusumo, beberapa rumah sakit jejaring RSCM, dan RS Wahidin Sudirohusodo Makasar dari bulan November 2014 sampai dengan Mei 2015. Uji statistik yang digunakan untuk menilai perbedaan kadar fecal elastase 1 antara kanker pankreas yang resectable dan unresectable adalah Mann Whitney dan untuk menilai perbedaan rerata kadar fecal elastase 1 berdasarkan stadium kanker pankreas adalah Kruskal Wallis.

Hasil : Sebanyak 48 subyek kanker pankreas diikuti dalam penelitian, dengan kategori resectable sebanyak 19(39,6%) subyek, dan 29(60,4%) subyek yang unresectable. Proporsi pasien kanker pankreas yang mengalami PEI sebanyak 75% (IK 95% 0,63-0,87) dan proporsi pasien kanker pankreas yang memberikan gejala steatore sebanyak 68,8% (IK 95% 0,557-0,819). Tidak ada perbedaan kadar fecal elastase 1 yang bermakna ( $P=0,738$ ) antara kelompok resectable dan unresectable dengan nilai median pada kelompok resectable adalah 38,0(15-500) &#956;g/g dan pada kelompok unresectable adalah 35,0(15-500) &#956;g/g. Tidak ada perbedaan bermakna ( $p=0,767$ ) kadar fecal elastase 1 berdasarkan stadium kanker pankreas dengan nilai median(rentang) pada stadium IB 36(15-100) &#956;g/g, stadium IIA 62(15-500) &#956;g/g, stadium III 15(15-500) &#956;g/g, dan stadium IV 36(15-500) &#956;g/g.

Kesimpulan : Pada penelitian ini didapatkan proporsi PEI dan steatore yang tinggi pada kanker pankreas. Tidak ditemukan perbedaan bermakna kadar fecal elastase 1 antara kanker pankreas yang resectable dan unresectable. Tidak terdapat perbedaan rerata kadar fecal elastase 1 berdasarkan stadium kanker pankreas.

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<b>ABSTRACT</b><br>

Background : In the pancreatic cancer can occur obstruction of the pancreatic duct that inhibit the enzyme transfer and bicarbonate into the duodenum which causes the enzyme activity is not quite adequate to maintain normal digestive process referred to as pancreatic exocrine insufficiency (PEI) that can be detected by measurement of fecal elastase 1 level.

Objective : Knowing the proportion and the degree of PEI, the steatore proportion in pancreatic cancer, the difference levels of fecal elastase 1 between resectable and unresectable pancreatic cancer and differences

between the mean levels of fecal elastase 1 based on the stage of pancreatic cancer.

**Methods :** A cross-sectional study to determine the difference levels of fecal elastase 1 between resectable and unresectable pancreatic cancer. This research was conducted at Cipto Mangunkusumo hospital, some satellite of Cipto Mangunkusumo hospital, and Wahidin Sudirohusodo Makasar hospital at November 2014 until May 2015. The statistical test used to assess differences in the levels of fecal elastase 1 between resectable and unresectable pancreatic cancer is Mann Whitney and to assess the differences between the mean levels of fecal elastase 1 based on staging pancreatic cancer is the Kruskal Wallis.

**Results :** A total of 48 subjects with pancreatic cancer were participated in this study, with resectable category were 19 (39.6%) subjects, and 29 (60.4%) subjects who unresectable. The proportion of patients with pancreatic cancer that experienced PEI are 75% (CI 95% 0.63 - 0.87) and the proportion of patients with pancreatic cancer which provide steatore symptoms are 68.8% (CI 95% 0.557 - 0.819). There is no significant difference levels of fecal elastase 1 ( $P = 0.738$ ) between the resectable and unresectable where the resectable group median value is 38.0 (15-500)  $\mu\text{g} / \text{g}$  and in unresectable group was 35.0 (15-500)  $\mu\text{g} / \text{g}$ . There is no significant difference ( $p = 0.767$ ) levels of fecal elastase 1 based on the stage of pancreatic cancer with median (range) in stage IB 36 (15-100)  $\text{pg} / \text{g}$ , stage IIA 62 (15-500)  $\text{pg} / \text{g}$ , stage III 15 (15-500)  $\mu\text{g} / \text{g}$ , and stage IV 36 (15-500)  $\mu\text{g} / \text{g}$ .

**Conclusion :** This study found a high proportion of PEI and steatore in pancreatic cancer. there is no significant difference fecal elastase 1 levels between the resectable and unresectable pancreatic cancer.

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