

PERBANDINGAN SKOR BOEY DAN SKOR JABALPUR
SEBAGAI PREDIKTOR MORBIDITAS DAN MORTALITAS
PASIEN PERFORASI ULKUS PEPTIKUM GASTER DI RSUP DR SARDJITO

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Abstrak

Latar Belakang: Perforasi merupakan salah satu komplikasi dari penyakit ulkus peptikum yang memiliki angka morbiditas dan mortalitas yang tinggi, termasuk di Indonesia. Dari berbagai sistem skor yang ada, skor Boey dan skor Jabalpur merupakan sistem skor yang sederhana, dan berasal dari penelitian di negara Asia, yaitu Hongkong dan India, sehingga kemungkinan dapat diterapkan di negara berkembang lainnya, termasuk di Indonesia.

Tujuan: Membandingkan keakuratan skor Boey dan skor Jabalpur, sehingga diharapkan ditemukan sistem skor yang sederhana, praktis, akurat yang dapat diterapkan di RSUP Dr. Sardjito sehingga dapat membantu dalam menentukan prognosis pasien paska operasi perforasi ulkus peptikum gaster.

Bahan dan Cara: Penelitian ini menggunakan metode analitik observasional *retrospective cohort* dengan mengambil data di bagian rekam medis untuk semua kasus peritonitis umum karena perforasi ulkus peptikum gaster yang dilakukan tindakan operasi non definitive surgery di RSUP dr. Sardjito januari 2009 sampai desember 2013. Setiap variabel bebas dan variabel tergantung yang telah ditentukan, secara statistik akan dianalisis hubungan antara keduanya dengan menggunakan uji Chi Square (atau uji Fisher Exact jika memiliki expected count < 5). Dikatakan bermakna secara statistik apabila $p < 0,05$. Penilaian perbandingan kedua skordilakukan dengan menggunakan analisis ROC (*Receiver Operator Curve*). Nilai titik potong (*cut off point*) mortalitas dan morbiditas (komplikasi) dihitung untuk setiap faktor risiko yang telah dimasukkan dalam sistem skoring Boey dan skor Jabalpur. Dengan menggunakan nilai titik potong ini, dibuat tabel dikotomis untuk menilai akurasi, sensitifitas, spesifitas serta nilai duga (*predictive values*) kedua skor. Kurva ROC juga dibuat untuk masing-masing skor dan dilakukan perbandingan nilai *Area Under Curve*(AUC) kedua skor.

Hasil: Dari total sampel 40 pasien, ditemukan angka mortalitas 72,5% dan morbitas 87,5% dengan sepsis merupakan penyebab terbanyak. Skor Boey memiliki akurasi prediksi morbiditas 85,4%, dan mortalitas 74,5%, dengan sensitivitas 65%, spesifitas 100%, positive predictive value 100%, negative predictive value 29%. Skor Boey dibawah 1,5 (skor 0 dan 1) memiliki resiko morbiditas 0,7x dan mortalitas 0,6x dibanding skor diatas 1,5 (skor 2 dan 3). Skor Jabalpur memiliki akurasi prediksi morbiditas 87,7% dan mortalitas 77,9%, dengan sesitivitas 69%, spesifitas 72%,%, positive predictive value 87%, negative predictive value 47%. Skor Jabalpur kurang dari 13,5 (skor 0-13) memiliki resiko morbiditas 0,7x dan mortalitas 0,6x dibanding skor di atas 13,5 (skor 14-21).

Kesimpulan : Skor Boey dan skor Jabalpur memiliki nilai $p < 0,05$ yang artinya bermakna secara statistik sehingga penelitian ini menegaskan kedua skor tersebut dapat digunakan sebagai skor prediktor mortalitas dan morbiditas di RSUP Dr. Sardjito. Secara statistik, skor Jabalpur lebih akurat, tetapi dalam aplikasinya skor Boey lebih praktis.

Kata kunci : Peritonis umum, perforasi gaster, skor Boey, skor Jabalpur, morbiditas, mortalitas

COMPARISON BETWEEN BOEY SCORE AND JABALPUR SCORE AS MORBIDITY AND MORTALITY PREDICTIVE FACTORS IN PATIENTS WITH GASTRIC ULCER PERFORATION IN SARDJITO PUBLIC HOSPITAL JOGJAKARTA

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Abstract

Background: Gastric ulcer perforation is one of peptic ulcer disease complication which has high morbidity and mortality rates include in Indonesia. From various of scoring systems available, Boey score and Jabalpur score are moderately simple scoring system, originated from studies in Asian countries, including Hongkong and India, therefore they are possible to be applied in other developing countries, including in Indonesia.

Purpose of Study : To compare the accuracy between Boey score and Jalpabur score, in order to get a simple, practical, and accurate scoring system, which is applicable in Sardjito Public Hospital to determine post-operative prognosis in patients with gastric ulcer perforation.

Materials and method: This study was an observational analysis with a retrospective cohort method. We collected data from the medical record on all general peritonitis patients due to gastric ulcer perforation who underwent non definitive surgery in Sardjito Public Hospital from January 2009 until December 2013. The correlation between independent and dependent variables of both scores were analyzed statistically using Chi Square test (or Fisher Exact test if the expected count was < 5). It was statistically significant if p value < 0.05 . The comparative evaluation between two scores was carried out with ROC (*Receiver operator curve*) analysis. The cut off point of the mortality and morbidity (complications) were counted for every risk factors put in Boey score and Jalbapur score systems. Using this cut off point we made dicotomy table to assess accuracy, sensitivity, specificity and predictive values of both scores. ROC curve was also made for each scores and we compared the Area Under Curve (AUC) value of both scores.

Results: There were 40 pasients with mortality rate of 72.5% and morbidity rate of 87.5% and sepsis was the most common cause. Boey score had predictive accuracy on morbidity 85.4%, and mortality 74.5%, with sensitivity 65%, specificity 100%, positive predictive value 100%, negative predictive value 29%. Boey score below 1.5 (score 0 and 1) had morbidity risk 0.7 times and mortality 0.6 times compared with score above 1.5 (score 2 and 3). Jabalpur score had predictive accuracy on morbidity 87.7% and mortality 77.9%, with sensitivity 69%, specificity 72%, positive predictive value 87%, negative predictive value 47%. Jabalpur score below 13.5 (score 0-13) had morbidity risk 0.7 times and mortality 0.6 times compared with score above 13.5 (score 14-21).

Conclusion: Boey score and Jabalpur score had p values < 0.05 , which were statistically significant. Therefore, this study confirmed that these two scores were applicable as predictive scores for morbidity and mortality in Sardjito Public Hospital. From statistic Jabalpur score was more accurate than Boey score, but in its aplication, Boey score is more practical.

Keywords: General peritonitis, gastric ulcer perforation, Boey score, Jabalpur score, morbidity, mortality