



## ABSTRAK

# PERBANDINGAN EFEKTIFITAS BOEY SCORE DAN PULP SCORE DALAM MEMPREDIKSI MORBIDITAS DAN MORTALITAS PASCA OPERASI LAPAROTOMI PERFORASI GASTER DI RSUP DR. SARDJITO YOGYAKARTA

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### Latar belakang

Perforasi gaster merupakan suatu kegawatan abdomen akut dengan presentasi klinis pasien yang berat. Perforasi gaster memiliki angka mortalitas yang cukup tinggi. Skoring BOEY dan PULP merupakan indicator prognostic mortalitas perforasi gaster.

Maksud dan tujuan : Penelitian ini bertujuan mendapatkan sistem skoring yang paling baik dalam memprediksi morbiditas, mortalitas dan kesintasan hidup pasien perforasi gaster.

### Metodologi

Penelitian kohort retrospektif dengan variabel independen: *Boey's score* dan *PULP score*, variabel dependen: morbiditas dan mortalitas paska operasi perforasi gaster. Dilakukan analisis univariat, bivariate dan multivariate dengan metode *Chi-square* dan uji kesintasan *Kaplan Meier - Cox-regression*. Hasil analisis disajikan dalam nilai *p*, *RR (Relative Risk)*, *HR (Hazard Ratio)*, *95%-CI (Confidential Interval)*, dan kurva kesintasan *Kaplan Meier*.

### Hasil

34 sampel yang memenuhi kriteria inklusi dan eksklusi. Uji bivariate *Chi-square* menunjukkan *Boey's score* dan *PULP score* tidak berhubungan terhadap morbiditas ( $p>0,05$ ). Uji kesintasan *p Log-rank* antara variable *Boey's score* dan *PULP score* terhadap mortalitas didapatkan nilai  $p < 0,05$ , dengan hazard ratio masing masing : *Boey's score* *HR* 5,8, 95% *CI* (1,64-21,06) dan *PULP score* *HR* 74,7, 95% *CI* (15,50-359,92). Analisis multivariate *Cox Regression* metode *backward* didapatkan *HR* 2,3, 95% *CI* (1,28-82,20). Sehingga *Boey's score* lebih kuat 2,3 kali sebagai indikator prognostik mortalitas dibandingkan *PULP score*. Hanya 20% kelompok sampel penelitian dengan *Boeys score* tinggi yang masih hidup pada  $>7$  hari pasca operasi. *Boey's score* rendah memiliki tingkat kesintasan hidup 85 % hingga  $> 11$  hari pasca operasi.



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## Simpulan

*Boey score* lebih efektif 2,3 kali dibandingkan *PULP score* sebagai indikator prognostik mortalitas pasca operasi laparotomy perforasi gaster.

**Keyword:** Perforasi gaster, *Boey's score*, *PULP score*, morbiditas, mortalitas, kesintasan hidup



## ABSTRACT

### The Comparison of BOEY Score and PULP Score in Predicting The Postoperative Morbidity and Mortality Rate in Gastric Perforation Treated with Laparotomic Surgery in Sardjito Hospital Yogyakarta

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**Background:** Gastric perforation is an acute abdominal emergency with a severe clinical presentation of the patient.. Gastric perforation has a high mortality rate Boey and PULP scoring are mortality prognostic indicators of gastric perforation.

**AIM :** This study aims to obtain the best scoring system in predicting morbidity, mortality, and survival rate of patients with gastric perforation.

**Method:** The retrospective cohort study was carried out in 34 patients diagnosed as gastric perforation in Sadjito hospital, Yogyakarta from 1<sup>st</sup> January 2015 to 31<sup>st</sup> May 2020. The independent variables were the BOEY and PULP score and the dependent variables were postoperative morbidity and mortality rates. Chi square, Kaplan Meier and Cox-regression test were applied for the univariate, bivariate and multivariate analysis. The results were explained by *p-value*, RR (relative risk), HR (hazard ratio), 95% CI (confidence interval) and Kaplan Meier curve.

**Result:** The chi square analysis between the independent and dependent variables (post-operative morbidity) resulted in a *p-value* of >0.05, showing insignificance upon the morbidity and mortality rate post-operatively. The bivariate analysis using p-Log rank of the independent and dependent variable (Post operative mortality), showed a *p-value* of <0.05 with a HR of 5.8, 95% CI of 1.64-21.06 for Boey's score, and a HR of 74.7, 95% CI of 15.5-359.92 for PULP score. The multivariate analysis using the Backward Cox Regression test resulted in a HR of 2.3, 95% CI 1.28-82.2. Therefore, it was found that BOEY score is 2.3 times more accurate as prognostic indicator for mortality than PULP score.

**Conclusion:** Boey score is 2.3 times more effective than PULP score to predict morbidity and mortality rate after a laparotomic correction of gastric perforation.

**Keywords:** Gastric perforation, BOEY's score, PULP score, morbidity, mortality, survival rate