

# Histidine-Rich Glycoprotein as a novel biomarker for sepsis

新しい敗血症のバイオマーカー：Histidine-Rich Glycoprotein

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## • Histidine-Rich Glycoprotein

- Major plasma protein synthesized in liver ( 80kDa )
- Present at concentration of 100-150  $\mu\text{g/ml}$
- Its functional effects are unclear

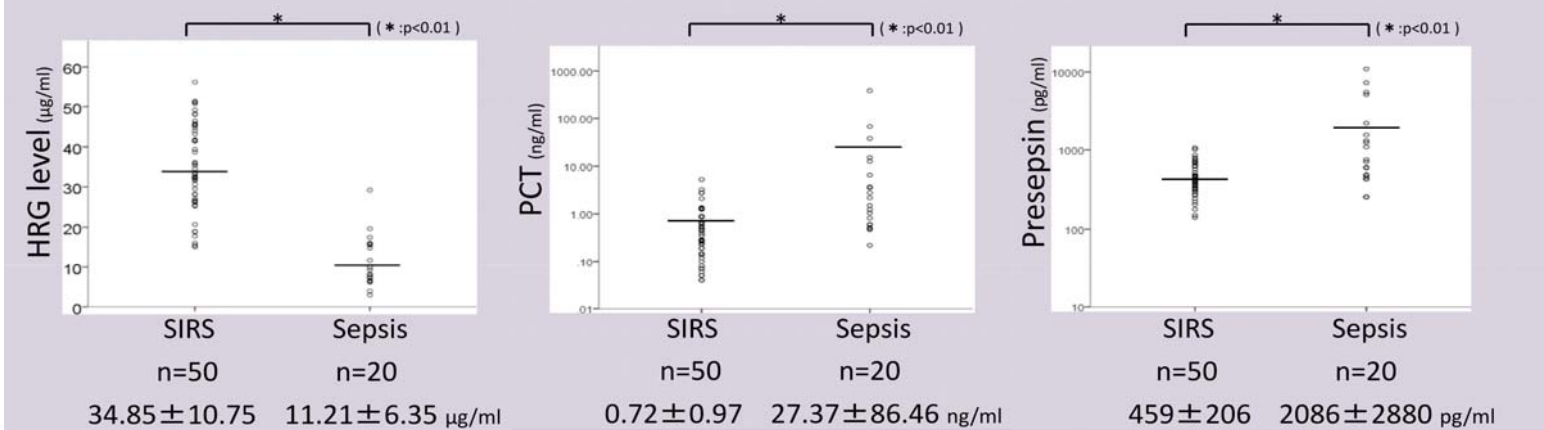
## • Objective

- We measured HRG levels in human patients
- We assessed the HRG as a biomarker

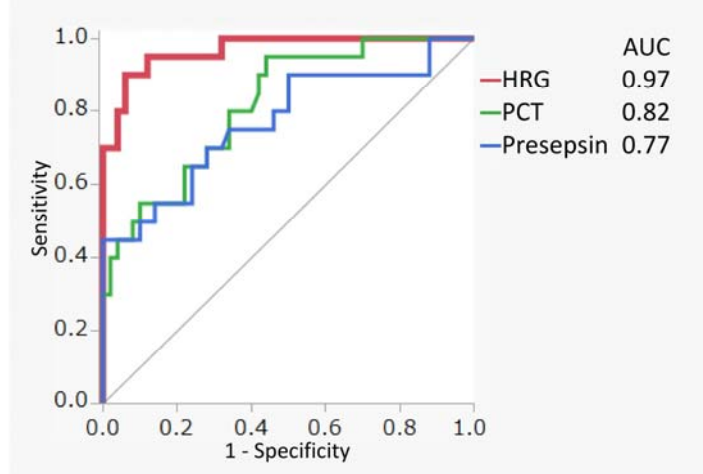
## • Previous reports

- Plasma HRG levels were significantly low in septic mice.
  - The administration of HRG significantly improved the survival rate of septic mice.
- ( Wake, et al. EBioMedicine 2016:180-194 )

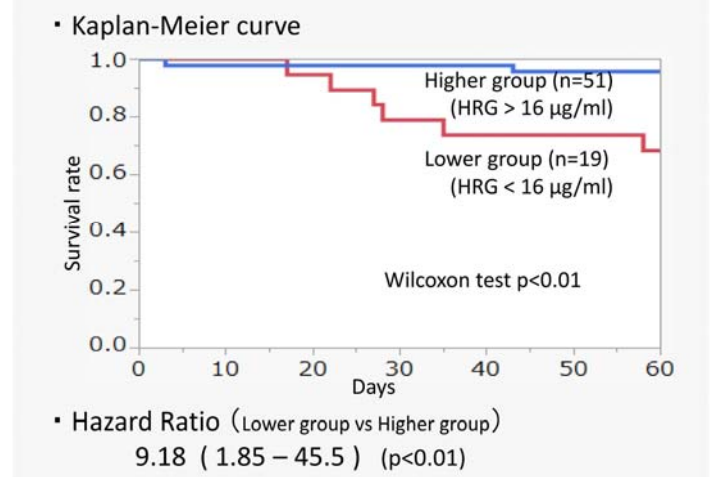
**Fig. 1** Plasma levels of each marker ( ICU Day1 ) [SIRS patients with infection vs those without]



**Fig. 2** ROC curves for detecting sepsis



**Fig. 3** Survival analysis



## • Conclusions

- Plasma levels of Histidine-Rich Glycoprotein were significantly low in septic patients.
- The lower HRG level might indicate the higher severity of patients.
- HRG could be a biomarker for sepsis.