

INCIDENCE OF PROTEINURIA FOLLOWING GEMCITABINE ADMINISTRATION IS A LIKELY SIGN OF POOR OUTCOME FOR CANCER PATIENTS



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BACKGROUNDS

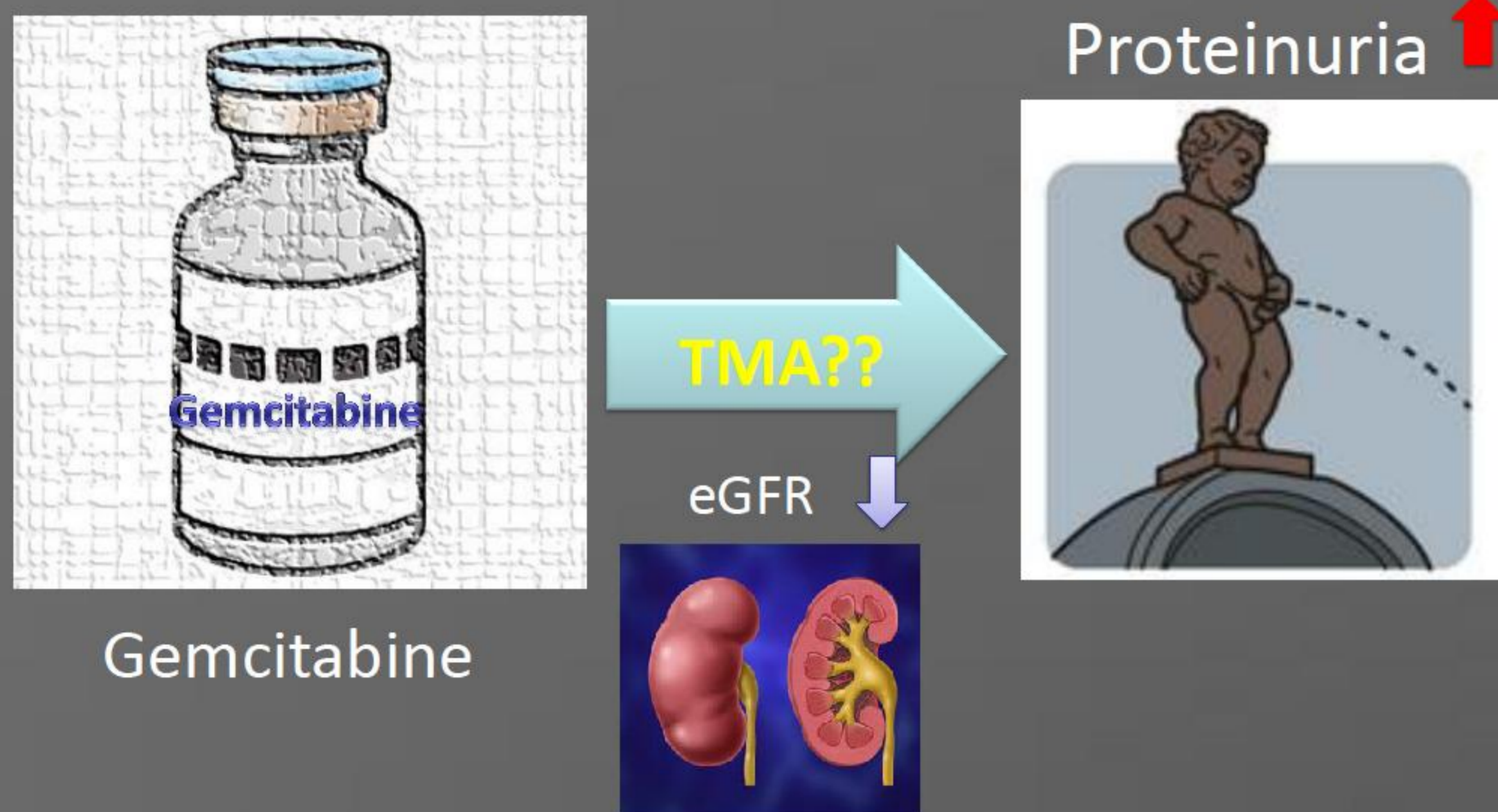
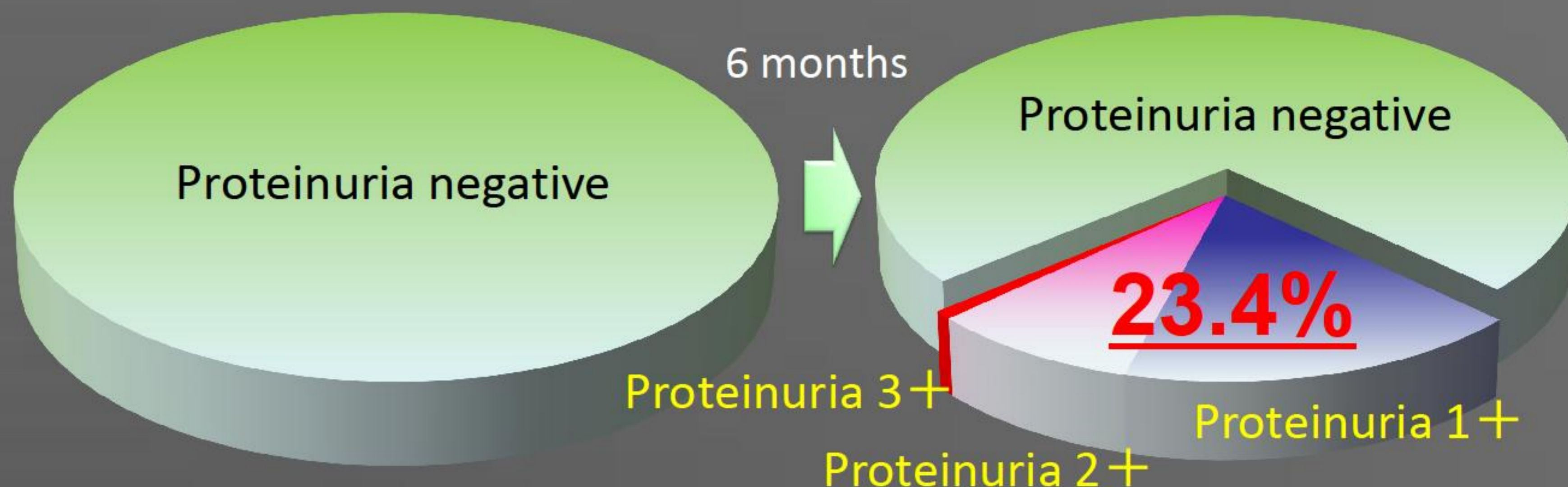


Figure 1. Distribution of proteinuria

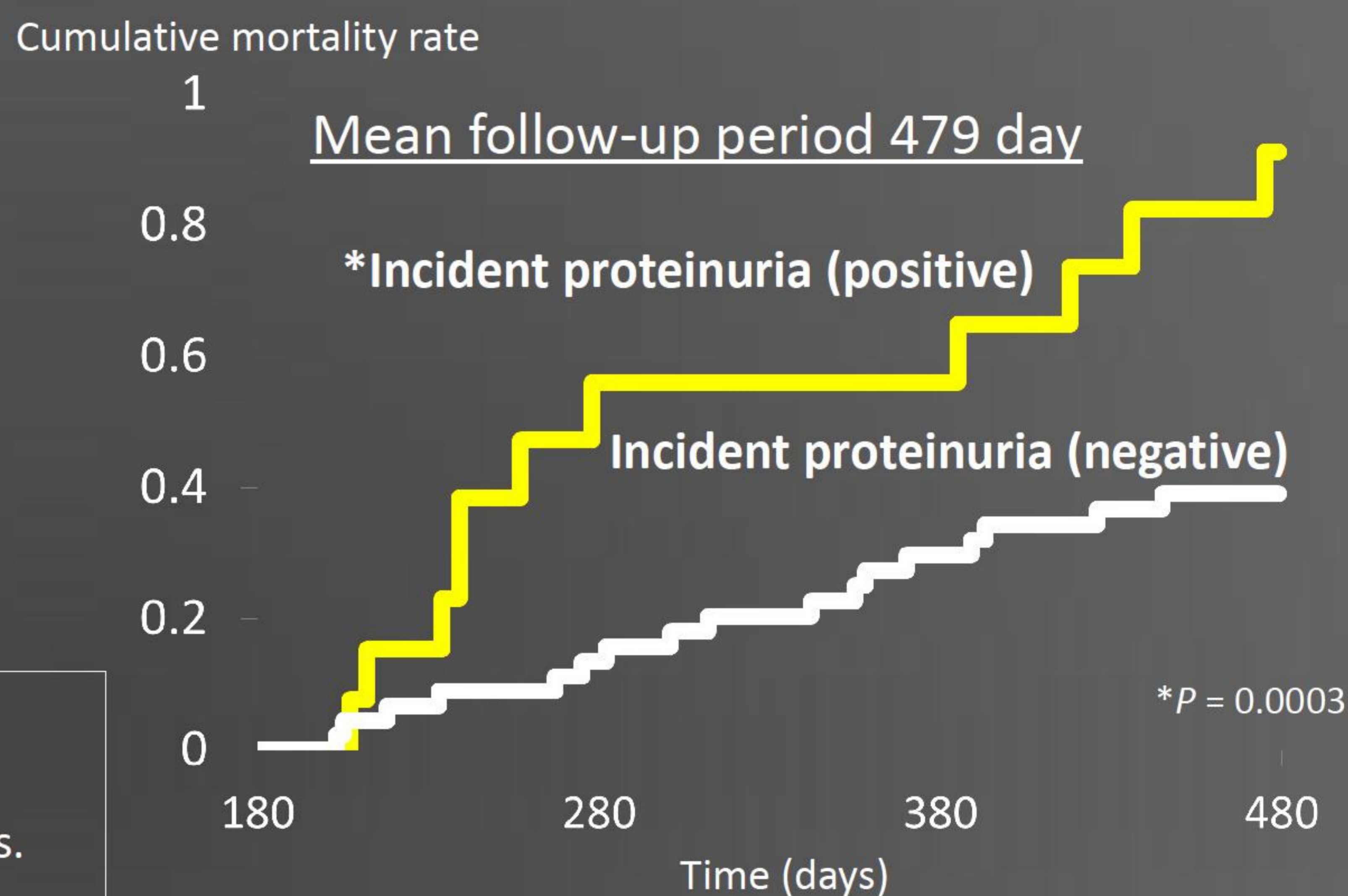


OBJECTIVES

How often is proteinuria occurring in patients receiving GEM?

What are related factors for incident proteinuria in patients treated with GEM??

Figure 2. Survival curves stratified by incident proteinuria (positive or negative)



SUBJECTS AND METHODS

Subjects:

• Longitudinal study: follow-up period ≥ 6 months. Included 53 pancreatic, 6 bile duct, and 1 biliary cancer patients.

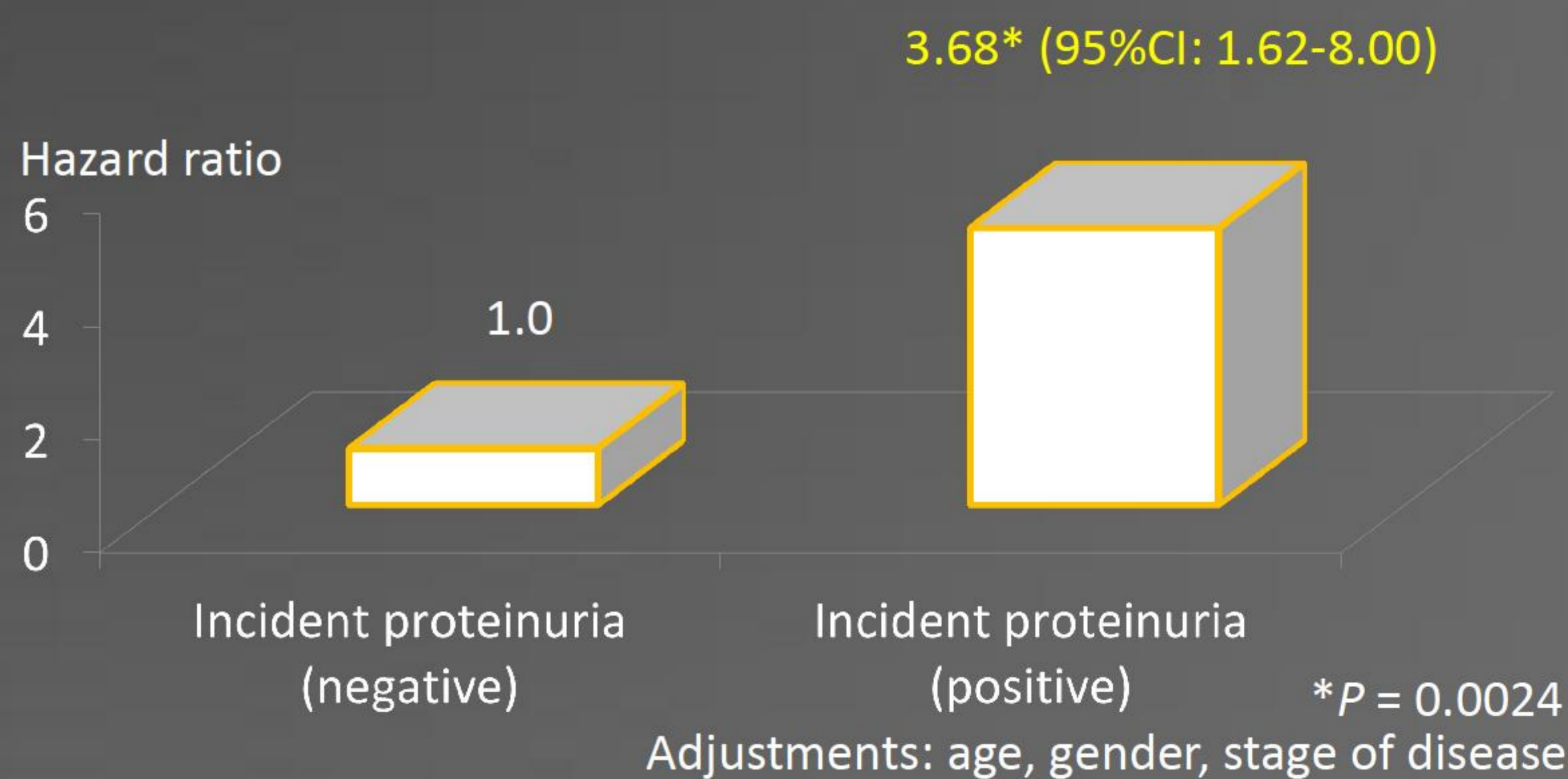
Inclusion criteria

1. Absence of proteinuria at baseline.
2. No exposure of any anti-cancer drugs.
3. Only single-agent therapy with Gem.
4. Normal kidney function: $eGFR \geq 60$ ml/min/1.73m² at baseline.

Methods:

- Incident proteinuria: defined as dipstick test $\geq 1+$, persistent in at least two consecutive examinations after GEM administration.
- Kaplan-Meier method: cumulative mortality.
- Multivariable logistic regression analysis, adjusted for age, gender, and stage of disease.

Figure 3. Cox hazard analysis for mortality



RESULTS

Table 1. Demographics and laboratory characteristics

No. of patients	N = 60
Age (y)	67 \pm 8
Men (%)	51.6
Performance status < 2 (%)	85.0
Performance status ≥ 2 (%)	15.0
Stage of disease ≥ 3 (%)	78.3
Hypertension (%)	33.3
Diabetes mellitus (%)	45.0
eGFR (ml/min/1.73m ²)	84.2 \pm 16.5

DISCUSSION

- How many patients had incident proteinuria after administration GEM??
 \Rightarrow 23.4% (present study) versus 35.6-58.5% (previous reports).
- Why was GEM administration associated with the emergence of proteinuria?
 \Rightarrow TMA is involved?
- Why was incident proteinuria associated with mortality?
 \Rightarrow The role of inflammation?

TAKE-HOME MESSAGE

Proteinuria is a harbinger of short term mortality in pancreatic, bile duct, and biliary cancer patients.

