

# 담도폐쇄증에 대한 Kasai술식 후 생존결과 및 예후인자

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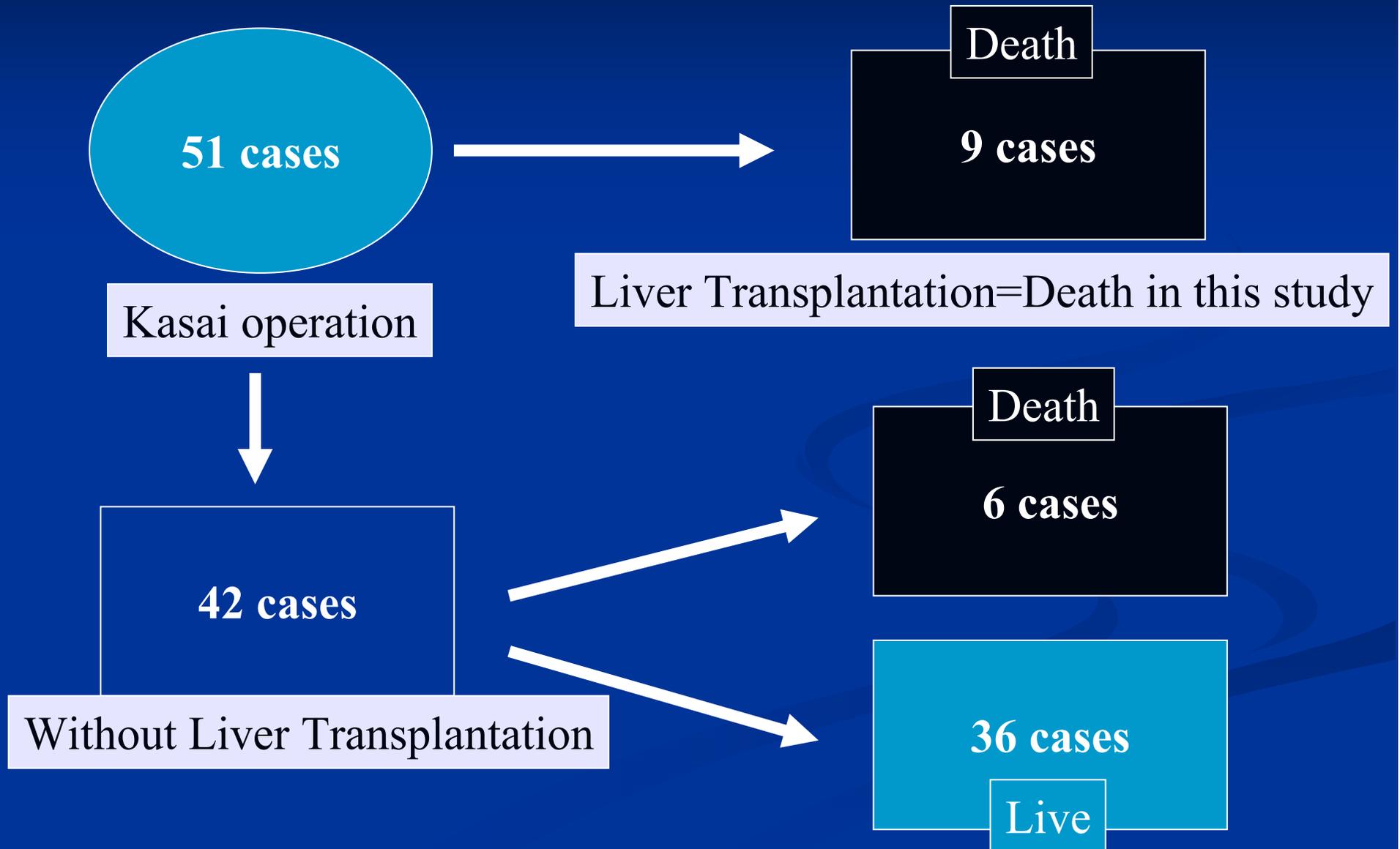
# Backgrounds and Purpose

- The prognostic factors of biliary atresia after Kasai portoenterostomy
  - the patient's age at the time of Kasai portoenterostomy (age)
  - the size of bile duct at the porta hepatis (size)
  - the clearing of jaundice after Kasai portoenterostomy (clearing)
  - the surgeon's personal experience.
- The aim of this study is to decide the most significant prognostic factor of biliary atresia after Kasai portoenterostomy.

# Materials and Methods

- Retrospective statistical analysis of the above mentioned prognostic factors
- In 51 cases of biliary atresia that had Kasai portoenterostomy by one pediatric surgeon
- For the statistical analysis, Kaplan–Meier method, Log–rank test and Cox regression test were used.
- A  $p$  value of less than 0.05 was considered to indicate statistical significance.

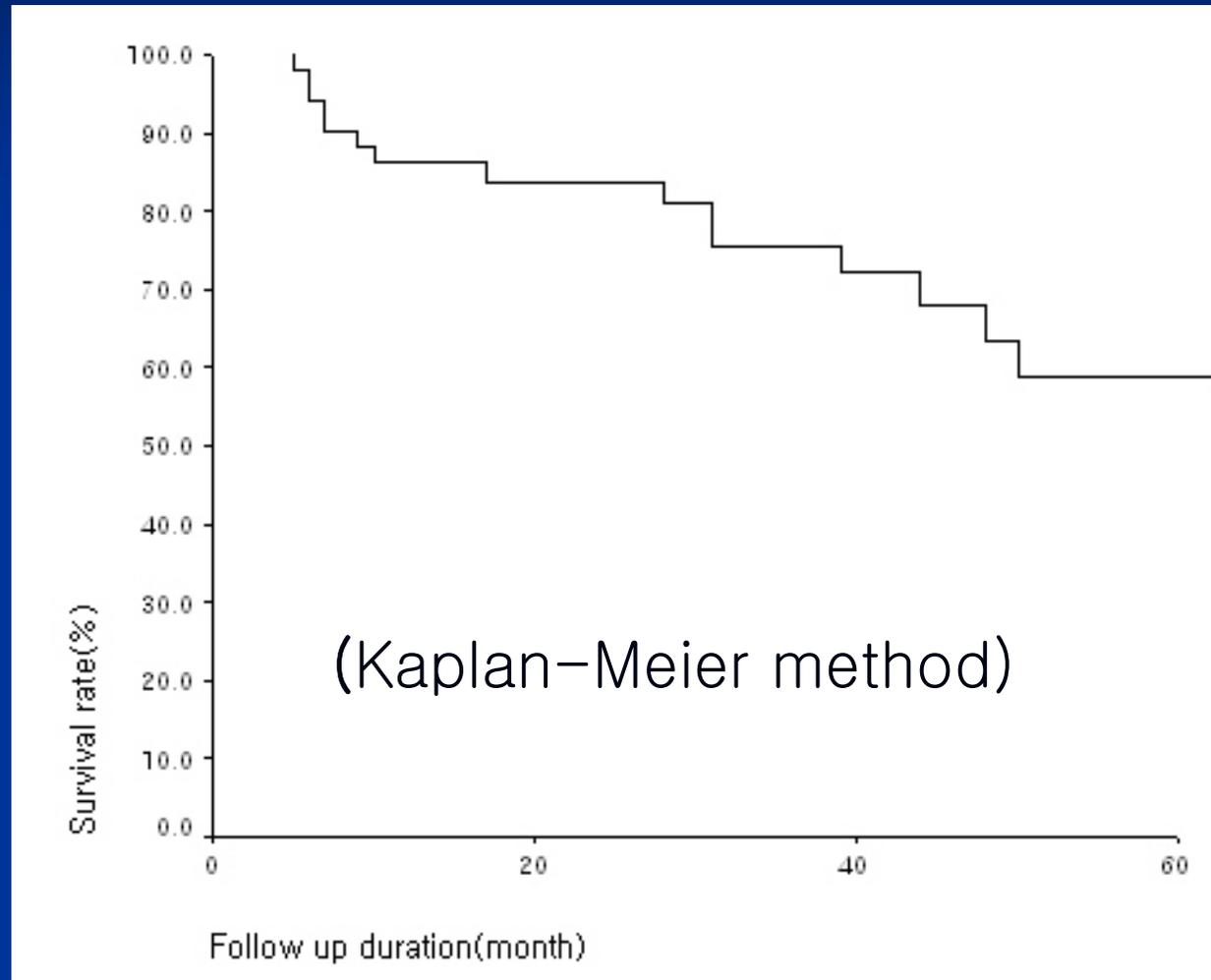
# Results (I)



# Results (II)

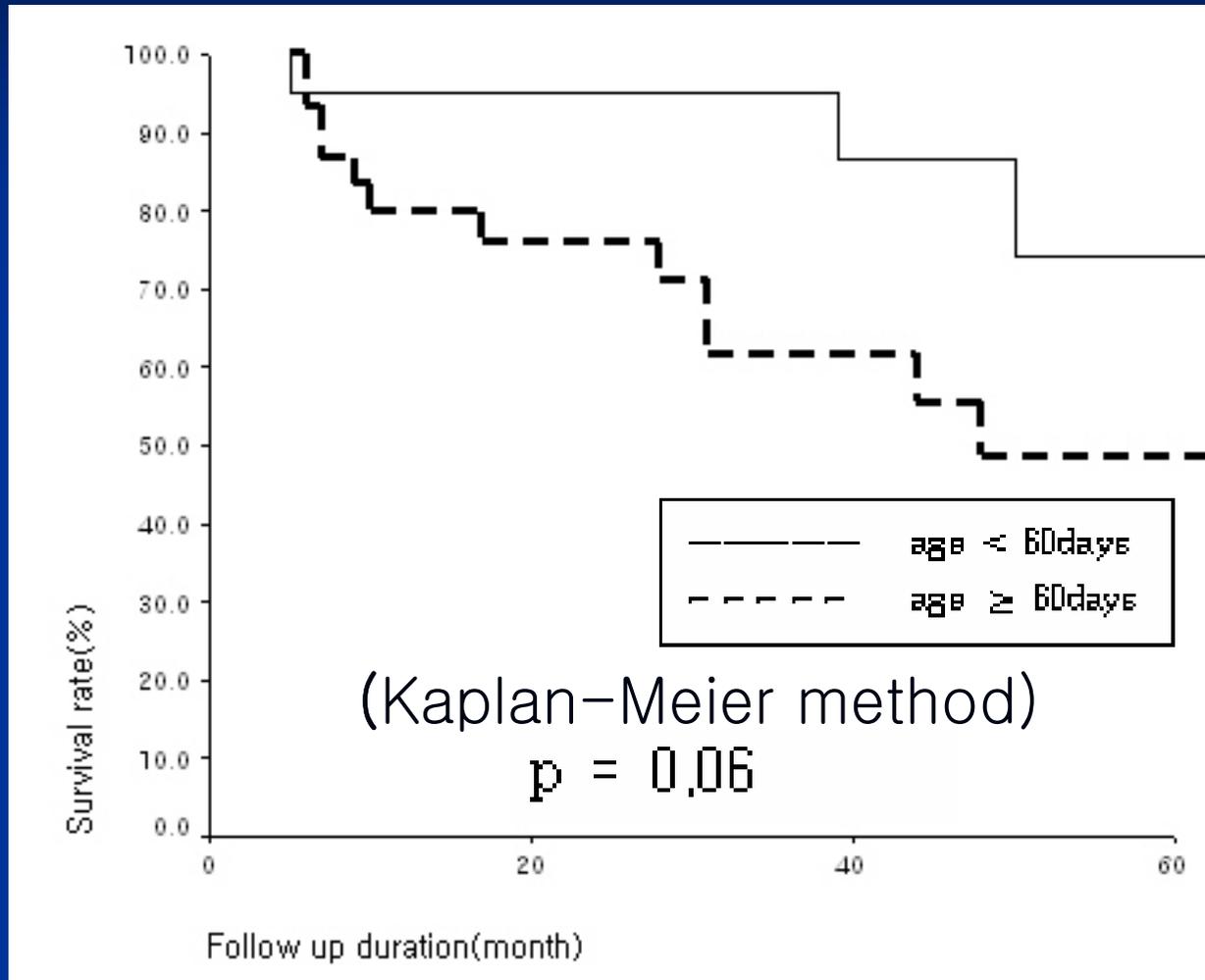
- Fifteen patients were regarded to be dead in this study, including nine liver transplantations.
  - 5 years survival rate = 59.0%
- Death without liver transplantation: 6 cases
  - Fatal ACR syndrome-2cases
  - Intractable cholangitis-2 cases
  - Duodenal ulcer bleeding-1case
  - Liver failure with parent's refuse against recommendation of liver transplantation-1 case
- Death with liver transplantation: 2 cases
  - Post transplantation bleeding: 1 case
  - PTLD (Post Transplantation Lymphoproliferative Disorder): 1 case
- Actual death including liver transplantation cases: 8 cases
  - Actual 5 years survival rate=72.6%

# Results (III)



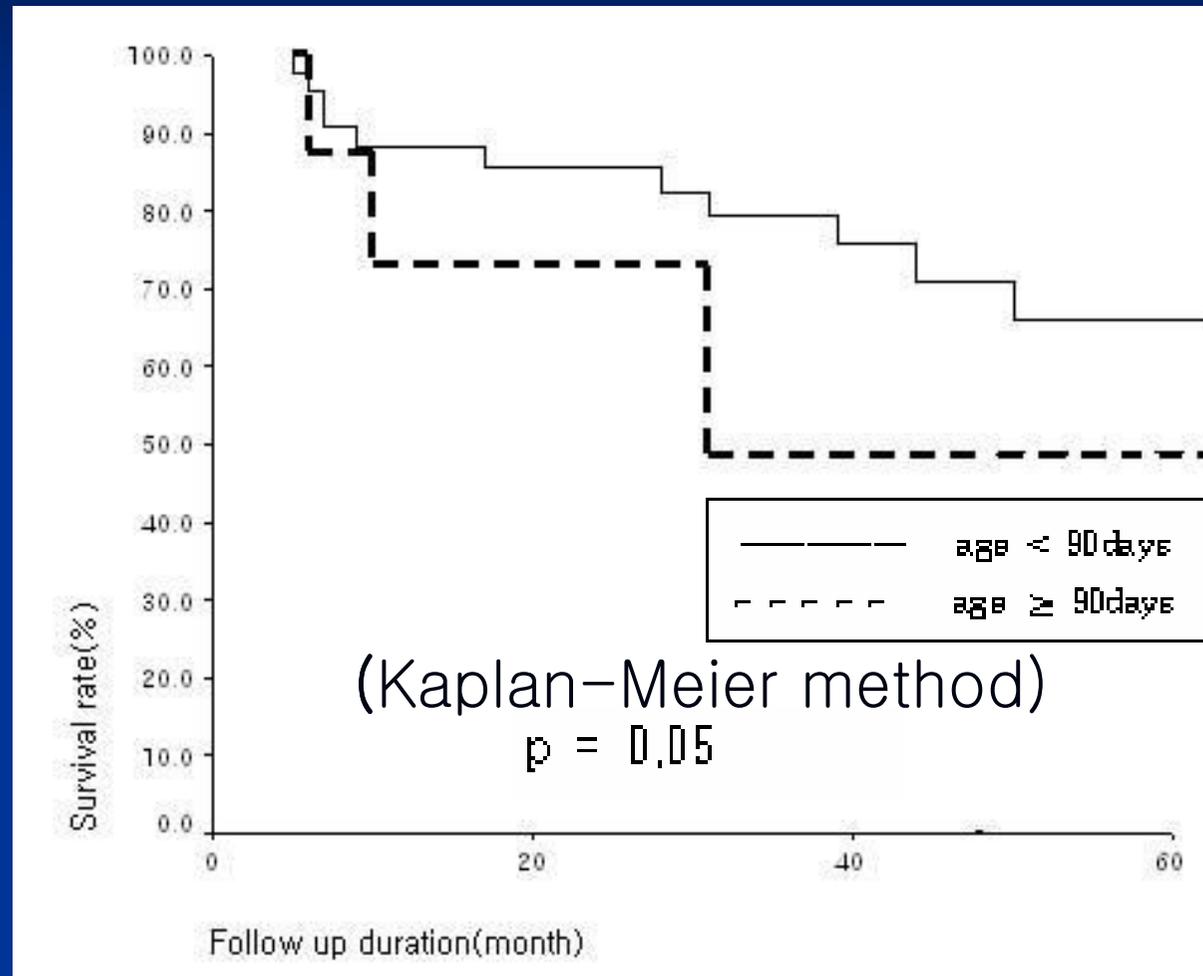
**Survival Curve of All Cases**

# Results (IV)



**Survival Curve by Age (60 days)**

# Results (V)



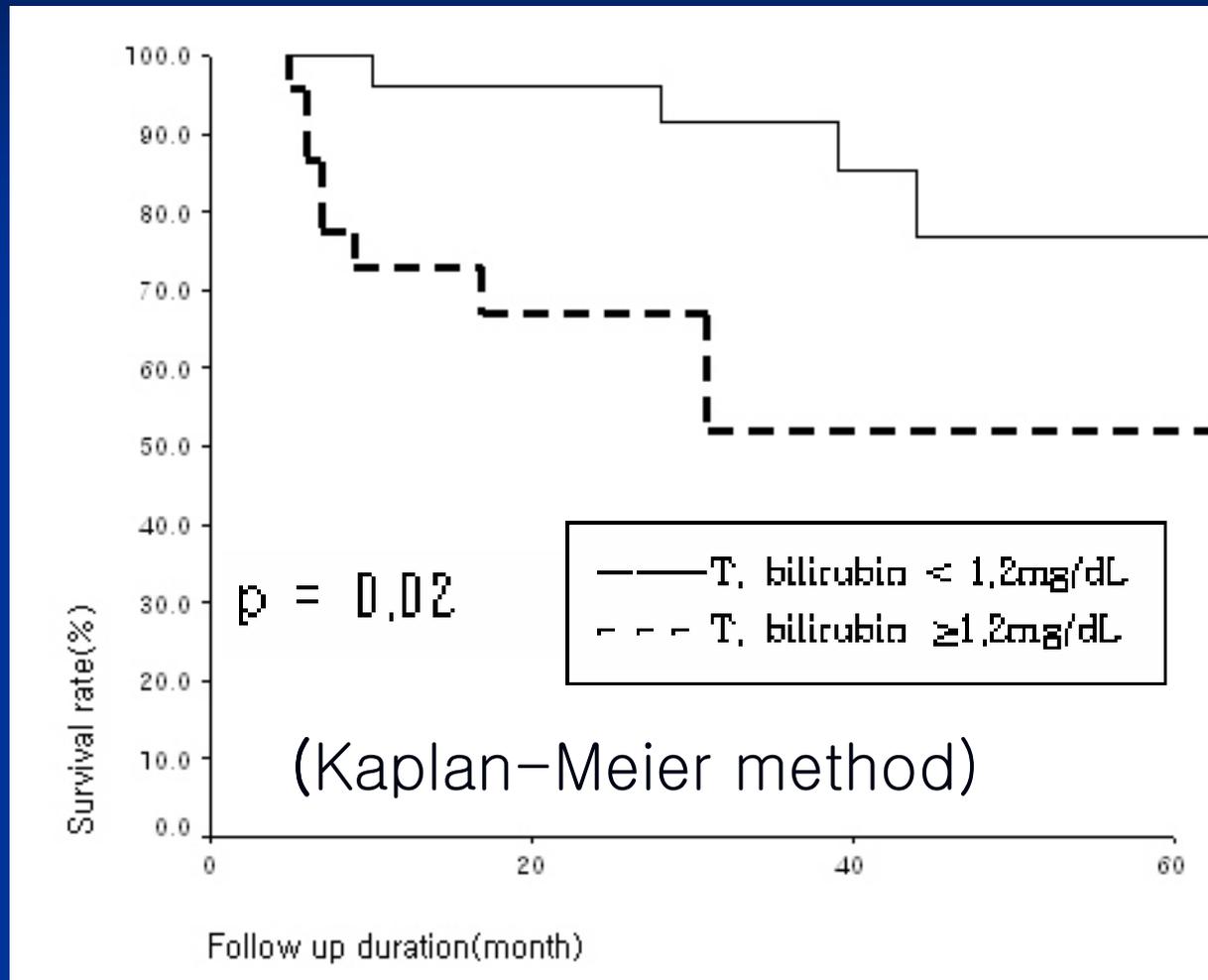
Survival Curve by Age (90 days)

# Results (VI)

Bile Duct Size (um)	Number of patient	5-year Survival Rate (%)	<i>P</i> -value
<50	8	0.0	<i>0.45</i>
≥50	43	63.3	
<100	23	42.1	<i>0.23</i>
≥100	28	66.8	
<150	38	55.2	<i>0.66</i>
≥150	13	70.5	
<200	47	55.7	<i>0.35</i>
≥200	4	80.0	

The Survival rate by the bile duct size

# Results (VII)



**Survival Curve by jaundice clearing at 6 months after Kasai operation**

# Results (VIII)

Risk factors	Hazard ratio	<i>P</i> - value
Age	1.005	0.629
Size	0.972	0.002
Clearing	1.086	0.001

Analysis of prognostic factors (Cox regression)

# Summary of the Results

- There is no significant difference of survival rate between groups of age.
- The age is also not significant risk factors for survival in this study (Cox Regression test;  $p$  value =  $0.63$ ).
- There is no significant difference of survival rate between groups of bile duct size.
- However, the size is significant risk factors for survival (Cox Regression test;  $p$  value =  $0.002$ ).
- There is significant difference of survival rate between groups of serum bilirubin clearing (Kaplan-Meier method;  $p$  value =  $0.02$ ).
- The serum bilirubin clearing is also significant risk factors for survival (Cox Regression test;  $p$  value =  $0.001$ )

# Conclusions

The serum bilirubin clearing is the most significant prognostic factor of biliary atresia after Kasai portoenterostomy.