

Microbiological Characteristics of Acute Cholangitis with Biliary-Enteric Anastomosis or Biliary Intervention.

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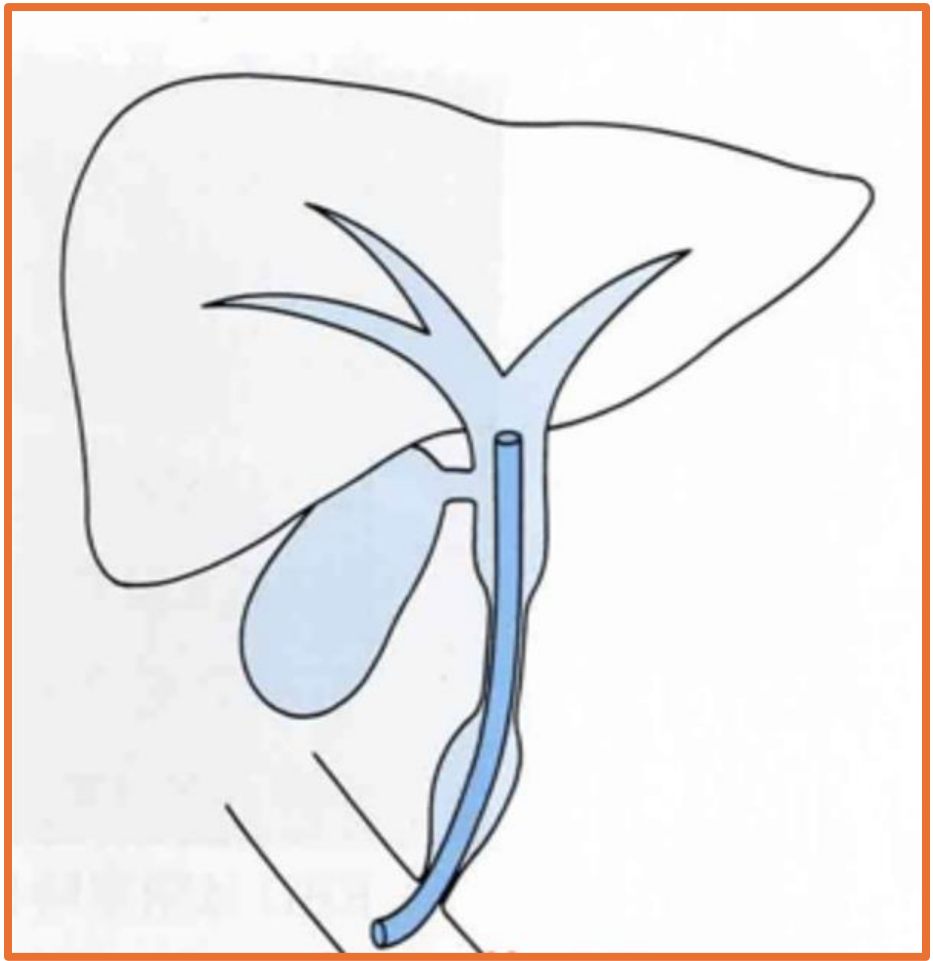
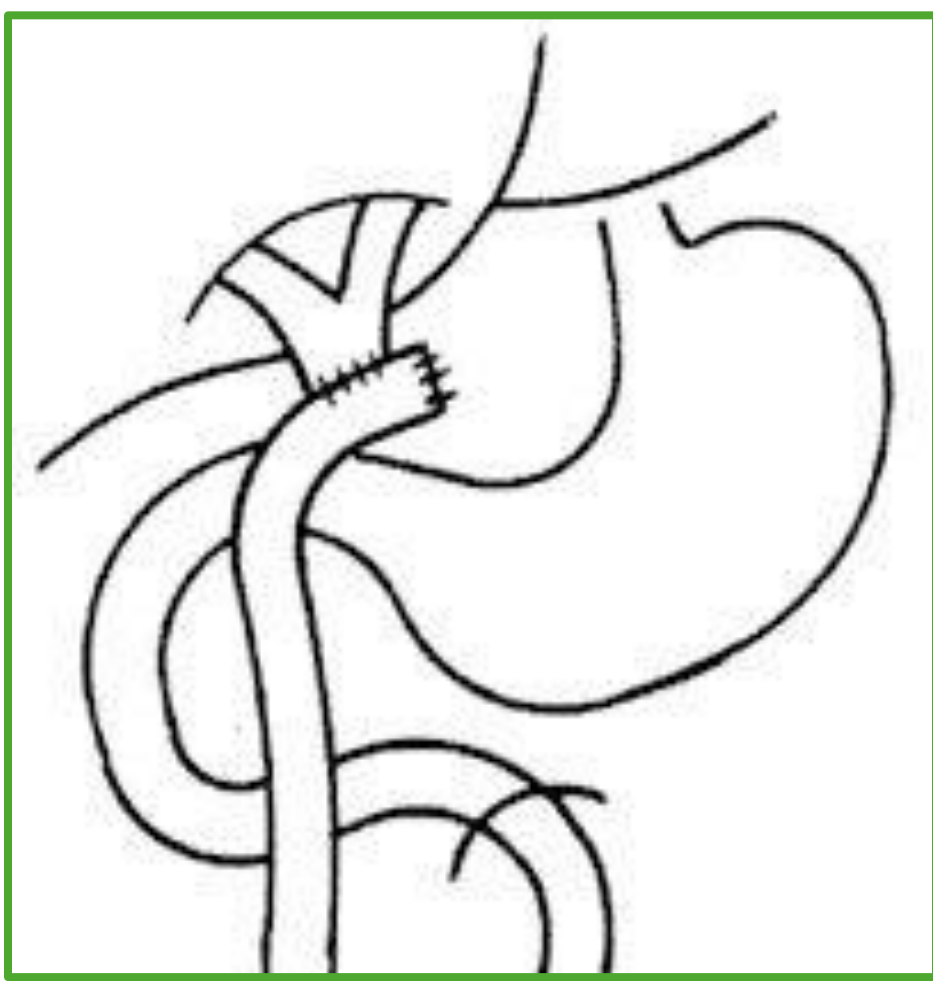
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Background

- We investigated microbiological characteristics of pathogens isolated from blood cultures (BCs) with acute cholangitis (AC) after biliary-enteric anastomosis and biliary interventions.
- Based on these characteristics, we investigated the appropriate antibiotic selection for these AC.

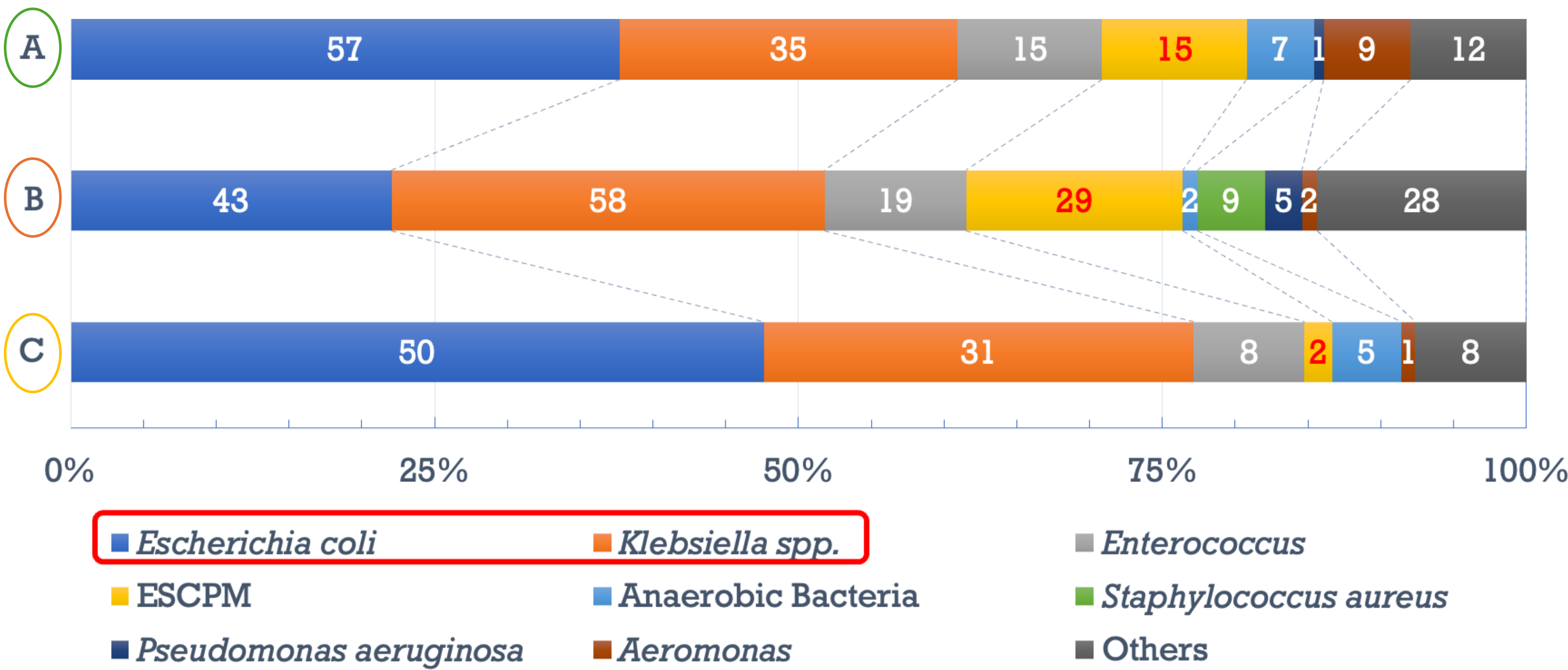
Methods

- Study design: Retrospective study.
- Period: January 2015 and December 2024.
- Objective: AC and bacteremia
- AC group definition:
 - A: After biliary-enteric anastomosis
 - B: Associated with biliary interventions (biliary stents or endoscopic sphincterotomy)
 - C: Without any biliary procedures
- Inclusion criteria
 - 1) Age > 18
 - 2) BCs positive
 - 3) Diagnostic criteria of AC based on Tokyo Guideline 2018
- Primary Endpoint
 - Microbiological characteristics of pathogens from BCs
- Secondary Endpoint
 - Complications after AC, mortality rate, etc.



Result

- Isolated pathogens from BCs among each group.



- ESCPM isolation- A: 10%, B: 15%, C:1.9%
The rate was higher in A / B group than in C group ($P<0.001$).
- Anaerobic Bacteria isolation- A: 4.7%, B: 1.1%, C:4.8%
No significant difference among all groups ($P=0.073$).
- E.coli* and *Klebsiella* spp. were isolated most frequently.

	A group	B group	C group
Age, median (IQR)	74 (67–78)	72 (63–80)	77 (68–82)
Male (%)	82 (68%)	99 (63%)	63 (71%)
Symptoms			
Fever	107 (88%)	137 (88%)	69 (78%)
Abdominal pain	17 (14%)	60 (38%)	52 (58%)
Healthcare-associated infection	97 (80%)	144 (92%)	59 (66%)
TG 18 severity grade (all cases)			
Grade I	51 (42%)	79 (51%)	35 (39%)
Grade II	30 (25%)	38 (24%)	18 (20%)
Grade III	40 (33%)	39 (25%)	36 (40%)
Complications			
Liver abscess	28 (23%)	12 (7.7%)	8 (9.0%)
Acute pancreatitis	0 (0%)	2 (1.3%)	12 (13%)
30-days mortality rate	1 (0.8%)	1 (0.6%)	3 (3.4%)

- Liver abscesses was significantly higher in A (23%, $P < 0.001$).
- Healthcare-associated infection rate was over 60%.

Discussion

- ESCPM carry chromosomal AmpC β -lactamases.
- It is considered 3rd or 4th generation cephalosporin for the treatment of A- and B-AC regardless the severity grade and healthcare-associated AC.
- Tokyo Guideline 2018 recommends biliary-enteric anastomosis is a risk factor for anaerobic bacteria.
← However, anaerobic therapy may be needed depending on the all cases, not only group A

Conclusions

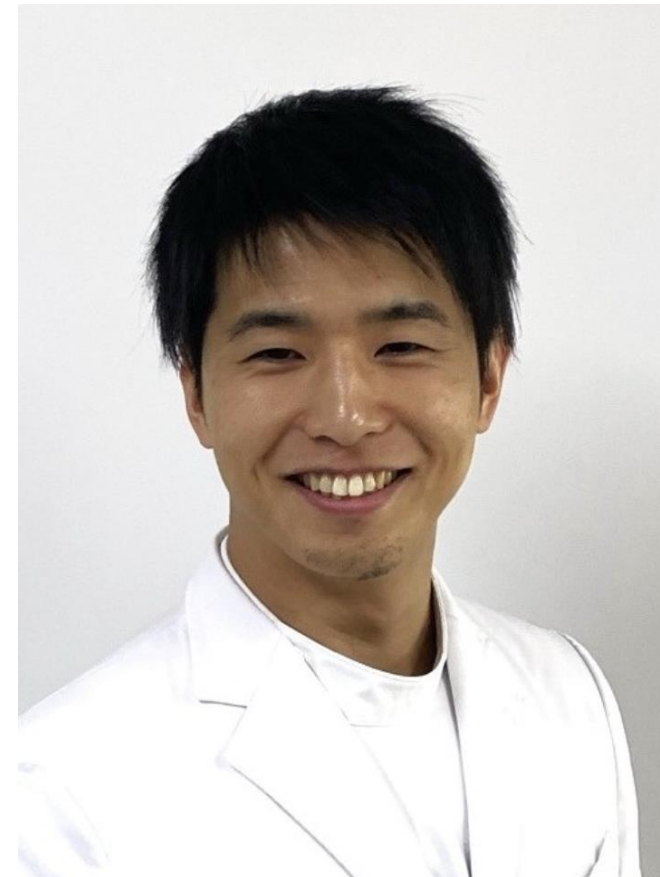
- Based on the isolation patterns of ESCPM, the history of biliary-enteric anastomosis or biliary interventions should be considered when determining the treatment strategy for AC.
- For AC with such a history, cefepime may be a better antibiotic option, particularly in severe cases.

Study Limitation

- The rate of healthcare-associated AC was high because our hospital is a tertiary-care hospital.
- Obligate anaerobic bacteria require long incubation times may be underestimated.

Acknowledgements

- Not applicable



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ESCPM

Enterobacter, Serratia,
Citrobacter, Providencia,
Morganella spp.