Patients and Methods

**Study design**: A retrospective review obtained from electronic medical records and clinical microbiology records.

**Subjects**: Patients admitted to the Kurashiki Central Hospital, Okayama between January 2005 and December 2016.

**Exclusion criteria**: Clinical specimens were positive for E. tarda.

**E. tarda**: More than one set of blood cultures was positive for E. tarda.

**Non-E. tarda**: Clinical specimens other than blood culture was positive for E. tarda. Clinical specimen submitted to the laboratory included blood, sputum, site, urine, feces, tissues, synovia, and pus.

**Obtained information**: Patients’ age, sex, underlying diseases, source of infection, antibiotic treatment, treatment outcomes, and periods.

**Results**

**E. tarda** is a rare entity. A total of 183,666 set of blood cultures were obtained during the study period, of which 19,294 set of blood cultures were positive for E. tarda. Only set of organ and 46 (0.02%) tube from 26 patients were E. tarda positive.

**E. tarda infection**: E. tarda isolates from blood cultures were susceptible to all tested antibiotics. The frequency of isolated was 2 days (range, 1–77 days).

**Antimicrobials**: Most (66.3%) of antibiotics were used in E. tarda infections compared with non-E. tarda E. coli infections.

**Clinical diagnosis**: Clinical specimens were positive for E. tarda.

**Clinical diagnosis (nos.)**: Cholangitis, Liver abscess, Enterocolitis, Cholecystitis, Spontaneous bacterial peritonitis, Myocardial aneurysm, Necrotizing fasciitis, Empyema, Peritonitis, Secondary peritonitis, and Focus unknown were the most common clinical manifestations in patients with ETB.

**Relevant information**: Treatment for cancer (nos.) was 0.001 (Table 2).

**Treatment duration (days)**: 17.7 [7.7-21.1] (P < 0.01).

**Blood culture**: All specimens

Conclusions

**ETB is a rare disease**.

**ETB is not associated with high mortality**.

**ETB patients in our cohort had severe underlying diseases such as hepatic dysfunction and solid tumors compared to general population.**

**Repiratory infections, such as cholangitis, cholecystitis, and liver abscess, are the more common clinical manifestations in patients with ETB.**

**The major underlying diseases in the present study were hepatic diseases and malignancies.**

**Isolated E. tarda strains were susceptible to all antimicrobials, including flucloxacin, amoxicillin, cefotiam, imipenem, trovafloxacin, and meropenem-sulfactam, and ETB was successfully treated with ampicillin.**

**Further study should be conducted to investigate risk factors for ETB-related death."