Isolations of *Leclercia adecarboxylata* from a Patient with a Chronically Inflamed Gallbladder and from a Patient with Sepsis without Focus

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Received 2 October 2000/Returned for modification 15 December 2000/Accepted 29 January 2001

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CASE REPORTS

Case 1. In 1999 a 78-year-old female was admitted to the Ghent University Hospital, Ghent, Belgium, with acute severe abdominal pain and biochemistry compatible with cholecystitis and oedematous biliary pancreatitis (Ranson score 6), for which an endoscopic retrograde cholangiopancreatectography (ERCP) with papillotomy was performed. She was admitted again 3 months later for an elective laparoscopic cholecystectomy to prevent further evolution of a pancreatitis. During hospitalization *Candida albicans* sepsis with pneumonia as the focus was diagnosed, and treatment with imipenem (1 g, three times per day) and fluconazole (400 mg, once daily) was started. Imipenem was given prophylactically during ERCP. The patient recovered and was sent home 5 weeks later. A follow-up scan of the pancreas and an abdominal echography showed pseudocysts and cholecystolithiasis, leading to elective laparoscopic cholecystectomy, whereafter the patient was cured.

Pathologic examination of the gallbladder confirmed the chronic inflammation. Gram staining of the specimen revealed streptococci and gram-negative bacilli. Bacteriologic culture of the gallbladder tissue on blood agar (tryptic soy agar with 5% sheep blood), MacConkey agar, mannitol salt agar, and thio-glycolate broth (all from Becton Dickinson BBL, Erembodegem, Belgium) yielded enterococci and a gram-negative rod. The isolates were considered clinically significant. The gram-negative isolate produced lactose-positive, yellowish colonies with a typical odor for *Leclercia adecarboxylata*. This led to the identification of *Leclercia adecarboxylata* (4, 8, 9). Antimicrobial susceptibility testing according to the Kirby-Bauer method and NCCLS criteria showed that the strain was susceptible to cotrimoxazole, amikacin, gentamicin, fluoroquinolones, ampicillin, piperacillin, temocilin, cefuroxime, ceftazidime, ceftriaxone, aztreonam, and imipenem.

Case 2. An 80-year-old female cardiac patient, hospitalized at the St. Elisabeth Hospital, Brussels, Belgium, in 1995 for a fourfold coronary bypass, developed an undocumented pneumonia postoperatively, which was treated with cefotaxime, and a *C. albicans* sepsis, which was treated with diflucan. On post-operative day 26, the patient developed a new septic episode with shiverings and a temperature of 38°C. White blood cell and neutrophil counts were 25,900 and 24,864 cells/μl, respectively, and the C-reactive protein value was 94 mg/liter. Two sets of blood cultures, obtained 15 min apart, were positive with gram-positive cocci (identified as *Enterococcus faecalis*) and gram-negative rods. A focus for this sepsis could not be found. The gram-negative rods grew as two different types of yellow colonies and were identified with Vitek 1 (bioMérieux) and conventional biochemical tests as *Escherichia hermannii* and *Leclercia adecarboxylata*. The strain was resistant for ampicillin and susceptible for cefuroxim, ceftriaxone, aztreonam, piperacillin, imipenem, gentamicin, amikacin, ciprofloxacin, and cotrimoxazole.

Sequence determination of the 16S rRNA gene of both strains (LBV467 and ENT100) was carried out (GenBank entries AJ276393 [1,457 bp] and AJ277978 [1,437 bp]) and revealed 98% similarity with *Pantoea agglomerans* (GenBank entry AB004961) as the closest match. Since no entries for *L. adecarboxylata* were present in GenBank, an additional determination of the 16S rRNA gene sequence of the type strain of *L. adecarboxylata* (ATCC 23216) was carried out (GenBank entry AJ277977 [1,447 bp]) and revealed 99.6% identity with LBV467 and 99.8% with ENT100. Clustering with 16S rRNA gene sequences determined from *Escherichia*, *Enterobacter*, and *Pantoea* spp. is shown in Fig. 1.

Amplification of the tRNA intergenic spacers (12) and separation of the fragments by ABI310 Prism capillary electo-
FIG. 1. Dendrogram constructed using UPGMA (unweighted pair group method using arithmetic averages) of the 16S rRNA sequences. Sequences determined in this study are indicated with an asterisk.

The isolation of *L. adecarboxylata* was also reported with consensus tRNA gene primers. Nucleic Acids Res. 19:4849–4856.


We thank Leen Van Simaey and Marleen Regent for excellent technical assistance.

REFERENCES


