Bacteriobilia in percutaneous transhepatic biliary drainage: occurrence over time and clinical sequelae. A prospective observational study.

BACKGROUND: In the diagnosis and treatment of biliary disorders, establishing percutaneous transhepatic biliary drainage (PTBD) is an invasive procedure that can potentially lead to infectious complications in both the short and long-term. We therefore prospectively analysed the time course and spectrum of biliary bacteria in patients undergoing PTBD. METHODS: Forty-nine patients (19 F, 30 M; mean age 64 years) with malignant (65%) or benign (35%) biliary disorders were included, 20 of whom had a newly established PTBD (group A), while the remaining 29 had already had their PTBD in situ (group B) for a mean of 8 months. Bacteriological analyses of bile and blood were carried out, and clinical symptoms and laboratory values were obtained. RESULTS: Biliary bacteria were found in 60% of cases during the initial PTBD placement, and 24 h later this rate had already increased to 85%; two or more microorganisms were found in 40% initially and in 70% after a few days. At later PTBD exchanges, bacteriobilia was found in 100%, with all patients harbouring multiple organisms. Whereas the initial spectrum was mixed, Escherichia coli and enterococci (97% each), Klebsiella (73%) and Bacteroides species (37%) later predominated; Candida increased initially from 15% to 80%, but later decreased to 30%. Clinical
signs of cholangitis were observed in 30% initially (no sepsis), but decreased to 6% at later exchanges. CONCLUSIONS: Bacteriobilia is initially a frequent, and later a regular, event in PTBD; however, clinically significant complications are rare during the long-term course and limited to the initial, more invasive, phase of PTBD. A knowledge of the bacterial spectrum is important for selecting appropriate antibiotic coverage if complications arise and/or major interventions such as surgery are planned.