**Table S1.** Comparison of patient characteristics between cases with and without CVC tip cultures

|  |  |  |  |
| --- | --- | --- | --- |
| Characteristic | Tip cultures not performed (*n* = 115) | Tip cultures  performed  (*n* = 361) | *P* valuea |
| Age, years | 73 (60–79) | 69 (57–75) | 0.01 |
| Male gender | 61 (53) | 181 (50.1) | 0.66 |
| BMI, kg/m2 | 23 (20–26) | 23 (20–26) | 0.55 |
| Underlying diseases |  |  |  |
| Cerebrovascular accident | 47 (40.9) | 152 (42.1) | 0.90 |
| Diabetes mellitus | 37 (32.2) | 116 (32.1) | 0.99 |
| Solid tumour | 46 (40.0) | 101 (28.0) | 0.02 |
| Hematologic malignancy | 6 (5.2) | 23 (6.4) | 0.82 |
| End stage renal disease | 4 (3.5) | 20 (5.5) | 0.53 |
| Liver cirrhosis | 6 (5.2) | 18 (5.0) | 0.99 |
| Charlson comorbidity index score | 2 (1–6) | 2 (1–4) | 0.42 |
| Underlying conditions |  |  |  |
| Hospital stay until onset of CLABSI, days | 25 (10–50) | 23 (13–47) | 0.59 |
| ICU stay at onset of bacteremia, days | 47 (40.9) | 104 (28.8) | 0.02 |
| Previous surgeryb | 17 (14.8) | 77 (21.3) | 0.16 |
| Previous chemotherapyb | 14 (12.2) | 28 (7.8) | 0.21 |
| Previous immunosuppressant useb | 5 (4.3) | 13 (3.6) | 0.78 |
| Neutropenia at onset of bacteremia | 2 (1.7) | 13 (3.6) | 0.54 |
| Organism |  |  |  |
| *Staphylococcus aureus* | 7 (6.1) | 55 (15.2) | 0.02 |
| Coagulase-negative staphylococci | 29 (25.2) | 120 (33.2) | 0.13 |
| *Enterococcus* species | 10 (8.7) | 12 (3.3) | 0.03 |
| Gram-negative bacilli | 15 (13.0) | 35 (9.7) | 0.40 |
| *Candida* species | 53 (46.1) | 135 (37.4) | 0.12 |
| Other | 1 (0.9) | 4 (1.1) | 0.99 |
| CVC type |  |  |  |
| Temporary nontunneled CVC | 90 (78.3) | 321 (88.9) | 0.006 |
| Perm catheter | 2 (1.7) | 3 (0.8) | 0.60 |
| Hickman catheter | 0 | 4 (1.1) | 0.58 |
| Chemoport | 23 (20.0) | 32 (8.9) | 0.002 |
| Peripherally inserted central catheter | 0 | 1 (0.3) | 0.99 |
| Tunnelled CVC | 25 (21.7) | 39 (10.8) | 0.005 |
| CVC dwell time, days | 16 (7–35) | 15 (9–25) | 0.65 |
| Long-term catheterization (≥30 days) | 33 (28.7) | 67 (18.6) | 0.03 |
| Location of CVC |  |  |  |
| Subclavian vein | 81 (70.4) | 288 (79.8) | 0.05 |
| Internal jugular vein | 34 (29.6) | 69 (19.1) | 0.03 |
| Femoral vein | 0 | 3 (0.8) | 0.99 |
| Peripheral vein | 0 | 1 (0.2) | 0.99 |
| CHSS-impregnated CVC | 49 (42.6) | 217 (60.1) | 0.001 |

The data are presented as no. (%) of patients or median (interquartile range), unless otherwise indicated.

Abbreviations: BMI, body mass index; CHSS, chlorhexidine–silver sulfadiazine; CLABSI, central line-associated bloodstream infection; CVC, central venous catheter; ICU, intensive care unit.

a Categorical variables were compared using either the chi-squared test or Fisher's exact test, while continuous variables were compared using the Mann–Whitney U-test.

b Within 1 month before the onset of CLABSI.

**Table S2.** Details of cases with discordant results between blood culture and tip culture

|  |  |  |
| --- | --- | --- |
| Case no. | Blood culture result | Tip culture result |
| 1 | *Enterococcus faecium* | *Candida* [*parapsilosis*](https://www.google.co.kr/search?sca_esv=51bb03e8c4ee914e&biw=1745&bih=835&q=Candida.+parapsilosis&spell=1&sa=X&ved=2ahUKEwiGj_H8yuOMAxXOh68BHUISLZEQBSgAegQIDRAB) |
| 2 | *Candida albicans* | *Staphylococcus epidermidis* |
| 3 | *Staphylococcus epidermidis* | *Candida* [*parapsilosis*](https://www.google.co.kr/search?sca_esv=51bb03e8c4ee914e&biw=1745&bih=835&q=Candida.+parapsilosis&spell=1&sa=X&ved=2ahUKEwiGj_H8yuOMAxXOh68BHUISLZEQBSgAegQIDRAB) |
| 4 | *Klebsiella pneumoniae* | *Staphylococcus epidermidis* |
| 5 | *Candida glabrata* | *Candida albicans* |
| 6 | *Staphylococcus epidermidis* | *Escherichia coli* |