1. Introduction

In Japan, the durations of indwelling urinary catheters have been reported longer than those of other developed countries including the United States and England(1,2). Catheter-related complications (CRC) include catheter-associated urinary tract infections (CAUTI) and catheter obstruction (CO). Although the CAUTI has been well investigated, there is a lack of studies on CO. Therefore, the purpose of this study was to examine the incidence rates and risk factors of CAUTI and CO among the patients with silicon-based and silver-coated Foley catheters (FC) (3).

2. Methods

After the approval of the ethical committee in Miyagi University, a quasi-randomized trial was conducted. The adult inpatients with the new indication of indwelling urinary catheter were grouped into silver-coated FC (silver group) or silicon-based FC (silicon group). Binary variables were analyzed using Mann–Whitney U-test, and quantitative variables were analyzed using chi-square test, and qualitative variables were analyzed using Mann–Whitney U-test.

3. Results

The results of 42 patients of silver group and 16 patients of silicon group were analyzed. The mean durations of silver group and silicon group were 15.5 (SD 15.7) days and 18.3 (SD 17.9) days(Table 1). The incidence rates of CAUTI were 4.8% (silver group) and 0% (silicon group) respectively (p=.374). The incidence rates of CO were 28.6% (silver group) and 6.3% (silicon group) respectively (p=.068). The female (p=.005) and administration of antibiotics (p=.005) were statistically significant factors for CO(Table 4).

4. Discussion

Although small sample size and non-equal numbers of both groups were main limitations of this study, type of Foley catheters would be a possible risk factor for CO. From this study results, CO happened more than CAUTI among inpatients with indwelling urinary catheter. In addition, female is a risk factor for CO. Administration of antibiotics during indwelling FC showed the preventive effect on CO, however, this issue should be examined further.

References