Title：The Diversity of Intestinal Microbiota in Patients With

Different Sedative-hypnotics and Mechanical Ventilation

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In order to study the relationship between biodiversity of intestinal microbiota in patients and different sedative-hypnotics undergoing mechanical ventilation. As propofol and sevoflurane are widely used in clinical anesthesia as sedative anesthetics,so we choose these two drugs as our observation objects.

Twenty patients undergoing cochlear implantation with endotracheal intubation in department of anesthesiology, shanghai ninth people's hospital, were allocated randomly to receive either propofol（n=10）or sevoflurane（n=10）. The parameter settings of ventilator (Drager,Germany Zeus Infinity Empowered)were set as follows: tidal volume 10 ml / kg, frequency 22 times / min. Oygen concentration was adjusted to maintain oxygen saturation no lower than 95%. The changes of hemodynamics were conventionally measured by the monitor. Propofol was used intravenously during the induction of general anesthesia (2.0mg / kg, 30 ~ 60s) in both groups. While in group propofol, continuous intravenous propofol maintenance (7 ~ 9mg · kg -1 · h-1) was used to achieve the stabilizing effect. And in group sevoflurane, inhalation (sevoflurane, 2.5-3.0 Vol%) maintenance was used. The BIS values of all the patients stay between 50 and 60. The average operation time was 5 hours.Faeces will be taken preoperative and postoperative so that the changes of the diversity of intestinal flora could be measured.

SPSS 21.0 software was used for data analysis. The measurement data from clinical studies are presented as means ± SEM (x ± s). The data between groups were subject to normal and variance homogeneity,independent sample t-test was used. Those who did not conform to normal distribution were tested by Wilcoxon rank sum test. The counting data were described by frequency and χ^2 test for groups comparison.