Anesthesia-related Mortality and Morbidity in Japan

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I would like to show the data from Japan about the mortality and morbidity related in anesthesiology.

Japanese Society of Anesthesiologist, so called JSA, have established in 1954. The members of JSA are ten thousands, and number of JSA board certificated anesthesiologist was 6 thousands.

In JSA, we have a committee on operating room safety. In this committee, there are four divisions. One is them is division of anesthetic safety information, which correlating the data, especially focused on mortality and morbidity related with anesthesia.

First Study of Anesthesia-related mortality and morbidity was conducting from 1994 to 1998. Second trial was performed from 1999 to 2003, the now third trial have been well-undertaken from 2004 and will finish in end of this year.

For 5 years in second trial, we have about 5.2 million anesthetic cases. Among them, about 13 thousands patients have any incidence of anesthesia related critical events. Among these patients, there were 3200 cases of cardiac arrest, 3400 cases who died within 7 days after surgery and 200 cases of vegetable state post-operatively.

This results means in the Japanese hospital with JSA board certificated anesthesiologist, per 10 thousands anesthetic cases, cardiac arrest was happened in 7.12 cases, severe hypoxia was in 7.67 cases, severe hypo-tensions in 19.17 cases and 7.17 cases died within 7 days after operation with any reasons. If we focused on the incidence related solely anesthetic management, the death with 7days was in 0.21 cases per 10 thousands which are similar with other developed country.

The mortality has been decreased year by year. The strategies generated from our survey for anesthetic related mortality and morbidity might be contributed with this favorable trends. End of this year, we will finish the third trial started in 2004, then results will be reported in 2009. I believe, the results from this new survey will make our anesthesia safer.

We change the methods to on-line database system. The hospital belong to JSA will use the same database. We can collect the whole data for each anesthetic case. Using this huge database, we are going to be able to perform more detailed analysis as like, the multivariate logistic analysis.