

METHOD AND APPARATUS FOR MEASURING ANESTHETIC DEPTH

ABSTRACT

The present invention rapidly reacts to changes in the degree of anesthesia to provide an accurate and timely anesthetic depth measurement result, and a method for measuring anesthetic depth comprises the steps of: an epoch dividing portion generating an epoch signal by dividing a EEG signal into a plurality of numbers based on time units, a coefficient portion extracting a CAI calculation value (CAI) by calculating the number of points in an epoch having a value higher than an established critical value, a Shannon entropy calculating portion extracting a Shannon entropy calculation value (ShEn) by conducting a Shannon entropy-calculation from the EEG signal, and a spectra entropy calculating portion extracting a spectra entropy value (SpEn) by conducting a spectra entropy calculation; an improved Shannon entropy extracting portion extracting an improved Shannon entropy calculation value (MshEn) by multiplying the Shannon entropy calculation value (ShEn) and the spectra entropy calculation value (SpEn); and a CAI extracting portion extracting an anesthetic depth index (MsCAI) through logical operating of the improved Shannon entropy calculation value(MshEn) and the CAI calculation value (CAI).

FIG. 2