Figure Legends

Figure 1. Measurement of the Tei-index**.**

The Tei-index, (ICT + IRT)/ET, is calculated from (*a-b*)/*b*, where *a* is interval between cessation and onset of mitral inflow, and *b* is interval from onset to cessation of left ventricular (LV) outflow. Isovolumic relaxation time (IRT) was measured as (*c-d*) by subtracting interval between R wave on electrocardiograms (ECG) and cessation of LV outflow (*d*), and from interval between the R wave and onset of mitral flow (*c*). Isovolumic contraction time (ICT) was obtained by subtracting IRT from (*a-b*). ET, ejection time.

Figure 2. Comparison of prevalence of global left ventricular dysfunction (GLVD) and of brain natriuretic peptide (BNP) levels between patients with obstructive sleep apnea syndrome (OSAS) and controls.

GLVD and High BNP are defined as Tei-index $\geq$ 0.50 and $\geq$ 20 pg/ml, respectively.

Figure 3. Correlation between Tei-index and apnea-hypopnea index (AHI) in patients with obstructive sleep apnea syndrome (r = 0.447, P < 0.05).
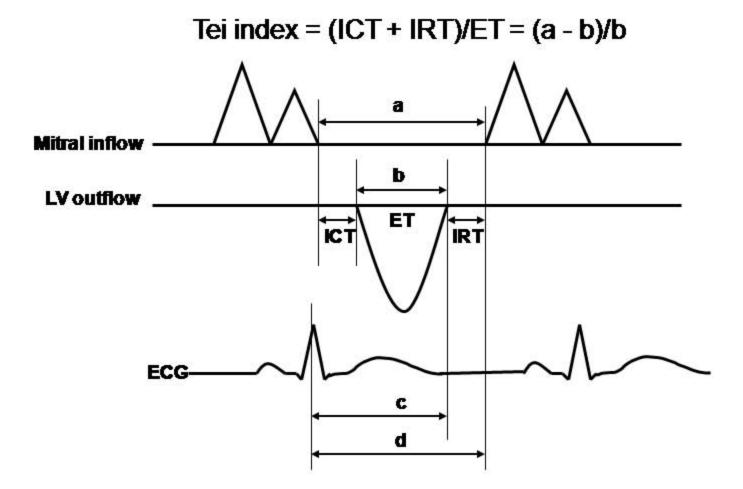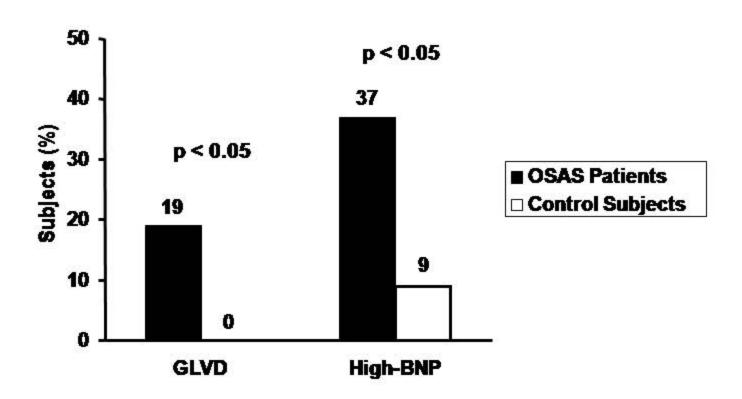
Figure 1

Tei index = (ICT + IRT)/ET = (a − b)/b

Figure 2

Figure 3