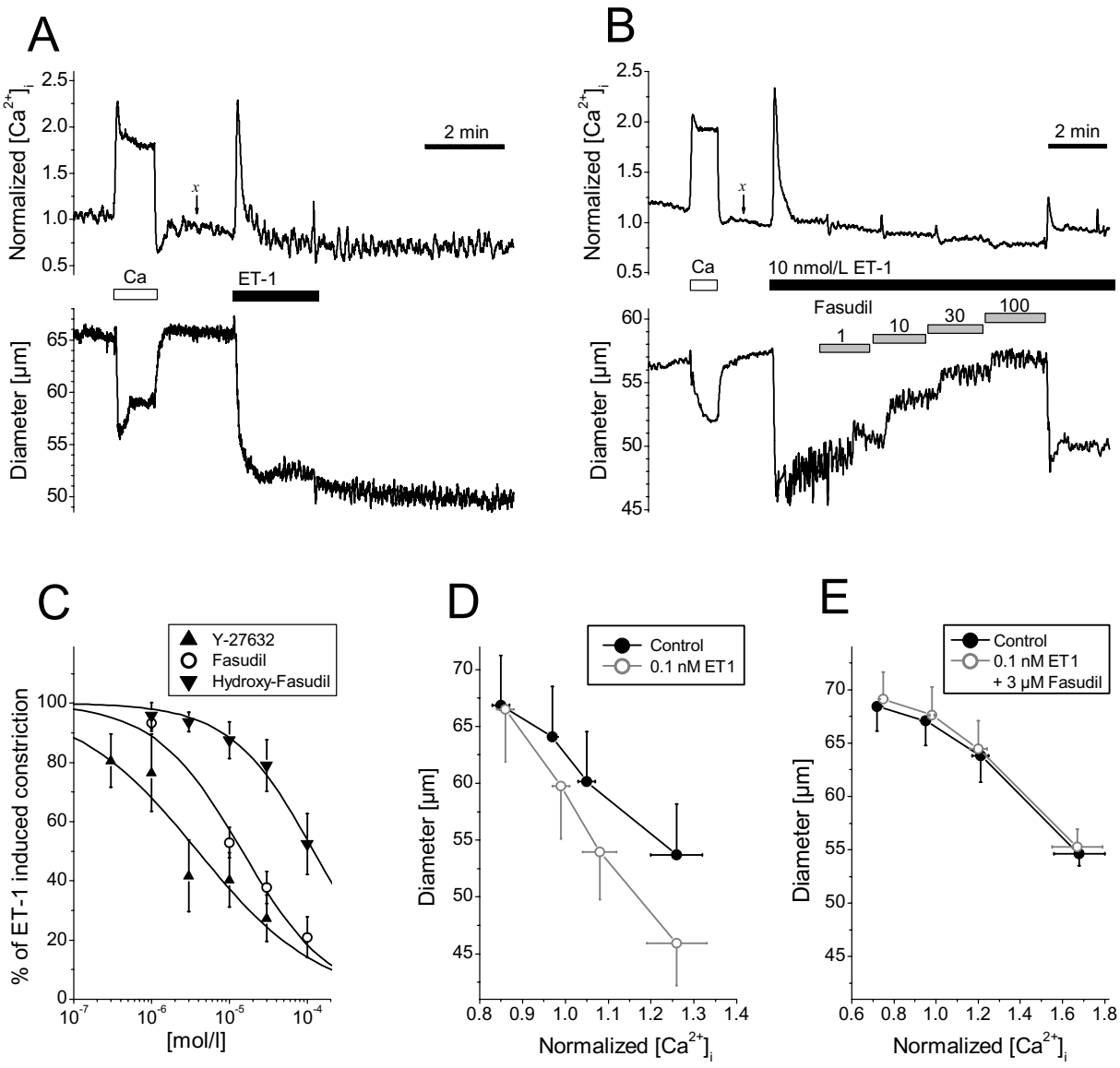

Figure 1

Rho-kinase inhibitors reverse ET-1-induced constriction. A) Effect of 10 nmol/L endothelin-1 (ET-1) on the cytosolic Ca^{2+} concentration ($[Ca^{2+}]_i$) and the vascular diameter of the spiral modiolar artery. Note that ET-1 caused a transient increase in $[Ca^{2+}]_i$ and a sustained vasoconstriction and increase in vasomotion. This constriction outlasted the stimulation with ET-1. Increasing extracellular Ca^{2+} concentration ($[Ca^{2+}]_{ex}$) to 10 mmol/L ("Ca") induced an increase in $[Ca^{2+}]_i$ with parallel vasoconstriction. This increase of the $[Ca^{2+}]_{ex}$ from 1 to 10 mmol/L ("Ca") served as a control experiment. Measurements of $[Ca^{2+}]_i$ were normalized to the value obtained prior to the admission of ET-1 (value at time '*x*' was set to 1). **B)** In the presence of 10 nmol/L ET-1, increasing concentrations of fasudil (1–100 µmol/L) induce dose-dependent relaxation. $[Ca^{2+}]_i$ values were normalized, with the baseline value prior to application of ET-1 designated as 1.0 (denoted as "*x*"). **C**) Dose-response curves for Y-27632-, fasudil- and hydroxy-fasudil-induced reversal of ET-1 (10 nmol/L) -mediated vasoconstriction. **C)** ET-1 stimulated a significant increase in VSMC contractile apparatus Ca^{2+} sensitivity. **D)** Fasudil completely reversed the ET-1-induced Ca^{2+}-sensitization.