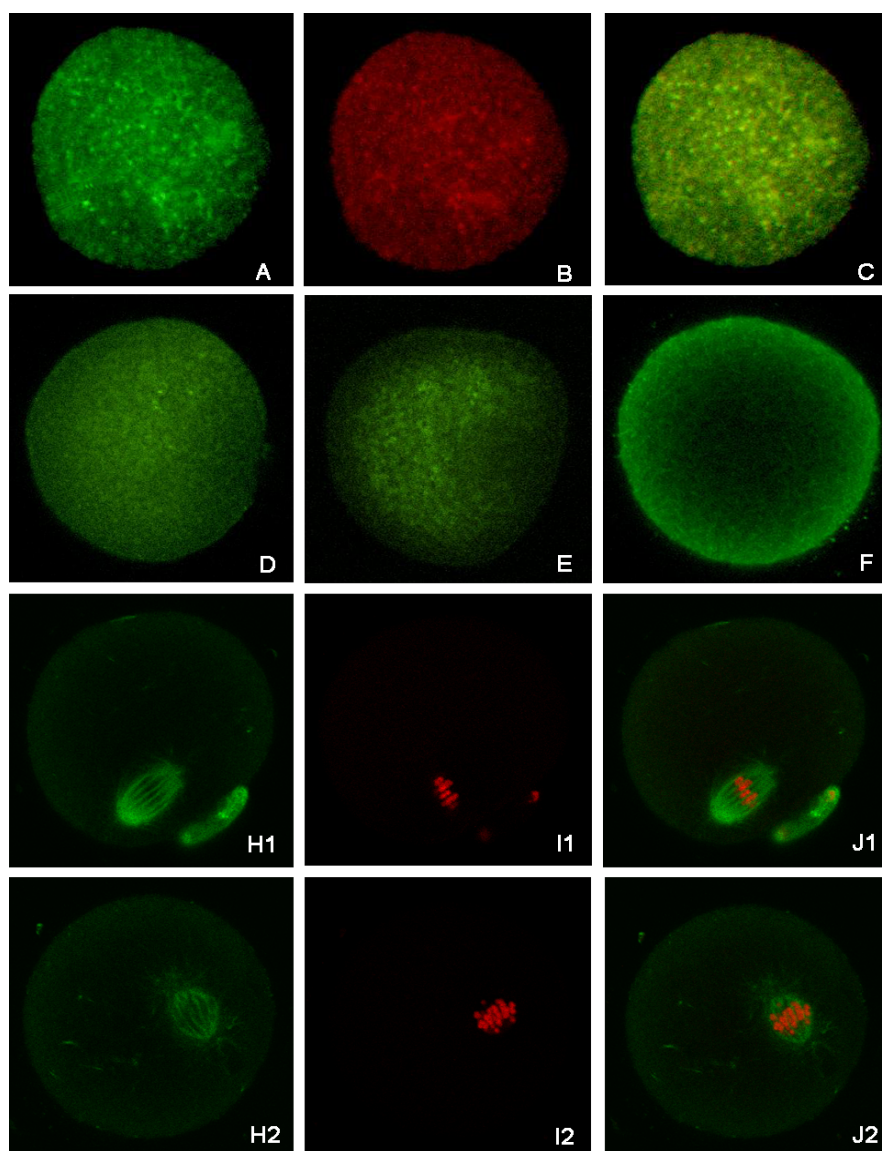


**Supplementary material**

**Fig. 1.** Fluorescent images of mitochondrial membrane potential, the pattern of distribution of mitochondria, and the configuration of spindles and chromosomes. Epifluorescent images of differential mitochondrial membrane potential reported were incubated with JC-1 and then detected in the FITC (A) and RITC (B) channel ( $\times 600$ ). (C) was the superposition of the two epifluorescent images of differential mitochondrial membrane potential images reported by JC-1. Fluorescent images of different mitochondrial distribution ( $\times 600$ ). The homogeneous distribution pattern was shown in (D). the heterogeneous pattern was showed in (E) and (F). The configuration of spindles and chromosomes in MII oocytes ( $\times 600$ ). Those spindles that lay in a horizontal plane with symmetric polarity (H1) and those chromosomes which distribute in the metaphase plate linearly (I1) were the normal configuration of cytoskeleton (J1). In contrast, (H2) showed the abnormal configuration of cytoskeleton. The spindles layer dissipated (I2) and the chromosomes had scattered distribution (J2).