

The effect of strophanthin and calcium on potassium loss from frog sartorius muscle. P. N. WITT (introduced by A. FARAH). *Dept. of Pharmacology, Univ. of Bern, Switzerland.* Resting frog sartorius muscle suspended in K free Ringer solution showed K leakage which was significantly enhanced when strophanthin 10^{-5} was added. The positive inotropic effect of Ringer solution with excess calcium, the enhancement of contracture in actomyosin by calcium and the sensitization to strophanthin by excess calcium suggested an effect of calcium on potassium leakage similar to that of strophanthin. However, in 30 experiments two times normal calcium or one quarter normal calcium in Ringer did not produce a change in K loss. Under our experimental conditions strophanthin increased K loss significantly beyond the 1% probability level (16 experiments) and this effect of strophanthin was independent of calcium concentration. This suggests that in muscle, calcium and strophanthin do not interfere in the same way with K metabolism.