Erratum

Activation Characteristics of the Calcium-Dependent Outward Potassium Current in Helix

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Pflügers Arch (1982) 394: 70–77

The abstract should read as follows:

Abstract. The activation of calcium-dependent outward potassium current [$I_{K(Ca)}$] by shortlasting Ca^{2+} inward currents was studied. These Ca^{2+} currents were produced either by small depolarizing pulses preceding the larger depolarizations or by interposed repolarizations (I.R.s) starting from depolarized membrane potentials. $I_{K(Ca)}$ then develops with a potential-invariant time course (half time 6–12 ms) and the normally bell-shaped isochronal $I_{K(Ca)}/V$ curve, measured at between 30 and 300 ms, is straightened. However, these Ca^{2+} -injecting pulses, of any amplitude and duration, do not increase the steady-state conductance to values beyond those measured with single step depolarizations to lower potentials. Once activated after a prepulse, $I_{K(Ca)}$ is maintained also during depolarization to near the supposed calcium equilibrium potential with no further Ca^{2+} influx. When I.R.s are varied in length, activation of $I_{K(Ca)}$ increases linearly with the amount of Ca^{2+} current. Fading of activation during I.R. follows a time course nearly ten times slower than activation and is not expressed in tail currents. The time course of $I_{K(Ca)}$ is described by a function defined only by voltage parameters of activation combined with a minimum activation time constant which is similar to that found in tail currents. Peak location and general form of the $I_{K(Ca)}/V$ relationship for times up to several hundred milliseconds are well predicted without the necessity to explicitly account for actual calcium entry.