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Resumo	Introduction: The antihypertensive effects of thiazide diuretics such as hydrochlorothiazide are commonly associated with erectile dysfunction. The association of hydrochlorothiazide/amiloride is not associated with erectile dysfunction. The hypothesis is that amiloride has beneficial effect in penile erection and, therefore, counterbalances the hydrochlorothiazide-induced disruptive effect. Aim: To investigate the effects of amiloride and its analogues hexamethylamiloride and benzamil on rat isolated corpus cavernosa (CC) and intracavernous pressure (ICP) in anaesthetized rats. Methods: Rat isolated CC were incubated with amiloride, hexamethylamiloride, and benzamil (10 and 100 µmol/L each), followed by phenylephrine, potassium chloride, and electrical field stimulation (EFS). Their effect on the relaxant responses to EFS and sodium nitroprusside were also determined. Oral (30 mg/kg) and intraperitoneal (3 mg/kg) treatments with amiloride were also investigated on nerve-evoked ICP. Main Outcome Measures: In vitro functional studies and in vivo ICP measurement on rat CC were performed. Additionally, phosphodiesterase type V isoform A1 activity and the mRNA expressions of Na+/H+ pump, epithelial sodium channel exchangers (ENaC) channels (α-, β- and γ subunits) and Na+/Ca2+ exchangers were evaluated in CC tissues. Results: Amiloride and its analogues significantly reduced the phenylephrine-, potassium chloride–, and EFS-induced CC contractions, which were not changed by nitro-L-arginine methyl ester (100 µmol/L) or indomethacin (6 µmol/L). In phenylephrine-precontracted CC tissues, amiloride itself caused concentration-dependent relaxation and significantly

	increased the EFS-induced relaxation. Oral and intraperitoneal treatment with amiloride significantly increased the ICP. Phosphodiesterase type V isoform A1 activity was not affected by amiloride. Na+/H+ pump, ENaC, and Na+/Ca2+ exchanger mRNA expressions were all detected in rat CC tissues.
Fomento	