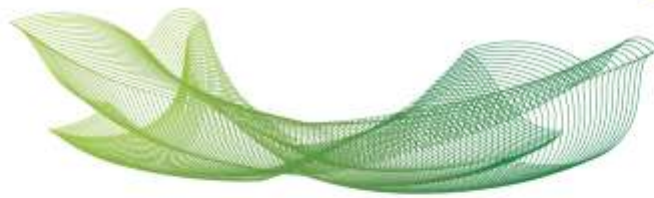




Tipo	Periódico
Título	Amiloride Relaxes Rat Corpus Cavernosum Relaxation In Vitro and Increases Intracavernous Pressure In Vivo
Autores	Rafael Campos, Mário A. Claudino, Mariana G. de Oliveira, Carla F. Franco-Penteado, Fernanda Del Grossi Ferraz Carvalho, Tiago Zaminelli, Edson Antunes, Gilberto De Nucci
Autor (es) USF	Mário A. Claudino
Autores Internacionais	
Programa/Curso (s)	Programa de Pós-Graduação Stricto Sensu em Ciências da Saúde
DOI	10.1016/j.jsxm.2019.01.315
Assunto (palavras chaves)	Amiloride; Corpus Cavernosum; Penile Erection
Idioma	Inglês
Fonte	Título do periódico: The Journal Of Sexual Medicine ISSN: 1743-6095 Volume/Número/Paginação/Ano: v. 01, p. 01-03, 2019
Data da publicação	March 01, 2019
Formato da produção	Digital https://doi.org/10.1016/j.jsxm.2019.01.315
Resumo	<p>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.</p> <p>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.</p> <p>Methods: Rat isolated CC were incubated with amiloride, hexamethylamiloride, and benzamil (10 and 100 $\mu\text{mol/L}$ 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.</p> <p>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 $\text{Na}^+/\text{Ca}^{2+}$ exchangers were evaluated in CC tissues.</p> <p>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 $\mu\text{mol/L}$) or indomethacin (6 $\mu\text{mol/L}$). In phenylephrine-precontracted CC tissues, amiloride itself caused concentration-dependent relaxation and significantly</p>



	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 ⁺ /Ca ²⁺ exchanger mRNA expressions were all detected in rat CC tissues.
Fomento	