Tipo	Periódico
Título	Sex-specific effects of Eugenia punicifolia extract on gastric ulcer healing in rats
Autores	Larissa Lucena Périco, Vinícius Peixoto Rodrigues, Rie Ohara, Gabriela Bueno, Vânia Vasti Alfieri Nunes, Raquel Cássia dos Santos, Ana Carolina Lima Camargo, Luis Antônio Justulin Júnior, Sérgio Faloni de Andrade, Viviane Miranda Bispo Steimbach, Luísa Mota da Silva, Lúcia Regina Machado da Rocha, Wagner Vilegas, Catarina dos Santos, Clélia Akiko Hiruma-Lima
Autor (es) USF	Raquel Cássia dos Santos
Autores Internacionais	
Programa/Curso (s)	Programa de Pós-Graduação Stricto Sensu em Ciências da Saúde
DOI	10.3748/wjg.v24.i38.4369
Assunto (palavras chaves)	Eugenia punicifolia, Gastric ulcer healing, Acetic acid, Sex difference, Myrtaceae, Toxicity
Idioma	Português
Fonte	Título do periódico: World Journal Of Gastroenterology ISSN: 1007-9327 Volume/Número/Paginação/Ano: v. 24, p. 4369-4383, 2018
Data da publicação	October 14, 2018
Formato da produção	Digital https://dx.doi.org/10.3748/wjg.v24.i38.4369
Resumo	AIM: To evaluate the sex-specific effects of a hydroalcoholic extract from Eugenia punicifolia (HEEP) leaves on gastric ulcer healing. METHODS: In this rat study involving males, intact (cycling) females, and ovariectomized females, gastric ulcers were induced using acetic acid. A vehicle, lansoprazole, or HEEP was administered for 14 d after ulcer induction. Body weight was monitored throughout the treatment period. At the end of treatment, the rats were euthanized and the following in vivo and in vitro investigations were performed: macroscopic examination of the lesion area and organ weights, biochemical analysis, zymography, and evaluation of protein expression levels. Additionally, the concentration-dependent effect of HEEP was evaluated in terms of subacute toxicity and cytotoxicity. RESULTS: Compared to the vehicle, HEEP demonstrated a great healing capacity by substantially reducing the ulcerative lesion area in males (52.44%), intact females (85.22%), and ovariectomized females (65.47%), confirming that HEEP accelerates the healing of acetic acid-induced gastric lesions and suggesting that this effect is modulated by female sex hormones. The antiulcer effect of HEEP was mediated by prostaglandin E2 only in male rats. Overall, the beneficial effect of HEEP was the highest in intact females. Notably, HEEP promoted the expression of vascular endothelial growth factor (intact vs ovariectomized females) and decreased the expression of Caspase-8 and Bcl-2 (intact female vs male or ovariectomized female). Additionally, HEEP enhanced fibroblast

	proliferation and migration into a wounded area in vitro, confirming its healing effect. Finally, no sign of subacute toxicity or cytotoxicity of HEEP was observed. CONCLUSION: In gastric ulcers, HEEP-induced healing (modulated by female sex hormones; in males, mediated by prostaglandin) involves extracellular matrix remodeling, with gastric mucosa cell proliferation and migration.
Fomento	