LETTER TO EDITOR

Veterinary Research Forum. 2023; 14 (4) 177
doi: 10.30466/vrf.2023.1990177.3791
Journal Homepage: vrf.iranjournals.ir

Veterinary Research Forum

Re: Protective effects of *Chromolaena odorata* extract on experimental benign prostatic hyperplasia in rats

Paula Alexandra Oliveira[1,2]*, Ana Faustino-Rocha[1,2,3,4], Elisabete Nascimento-Gonçalves[1,2,5]

[1] Centre for the Research and Technology of Agro-Environmental and Biological Sciences, University of Trás-os-Montes and Alto Douro, Vila Real, Portugal; [2] Institute for Innovation, Capacity Building and Sustainability of Agri-Food Production, Vila Real, Portugal; [3] Department of Zootechnics, School of Sciences and Technology, University of Évora, Évora, Portugal; [4] Comprehensive Health Research Center, Évora, Portugal; [5] LAQV-REQUIMTE, Department of Chemistry University of Aveiro, Aveiro, Portugal.

Received: 21 February 2022 Accepted: 05 March 2023 Available online: 15 April 2023

To the editor: We read the article entitled "Protective effects of *Chromolaena odorata* extract on experimental benign prostatic hyperplasia in rats" with great interest. This research aimed to evaluate the effects of hydro-methanol extract of *Chromolaena odorata* (HMECO) on testosterone propionate (TP)-induced benign prostate hyperplasia (BPH) rat model. We want to congratulate the authors for this original article and make some positive comments. The BPH is a common condition in both aged men and dogs. Although not considered a precursor of prostate cancer (PCa), BPH commonly affects the prostate gland, and shares some features with PCa, like symptoms, hormone-dependent growth and response to anti-androgen therapy.[1] Increasing our understanding in BPH can bring us more knowledge about PCa, for men and dogs. This is an article whose methodology is easy to replicate and whose authors know the specificities of this model of prostate hyperplasia. In our opinion, the remaining prostate lobes could have been evaluated, although in this specific model of BPH the hyperplasia of rat ventral prostate lobes is considered analogous to the morphological alterations of human BPH. This article reinforces the importance of animal models in the preclinical evaluation of new therapies obtained from natural extracts. In a similar way, our research group evaluated effects of *Castanea sativa* Mill. flower (CF) in a N-methyl-N-nitrosourea (MNU) plus testosterone rat model.[2] Animals from induced groups received a multistep protocol for PCa induction, consisted of sequential administration of flutamide, testosterone propionate, the carcinogenic agent MNU and crystalline testosterone. Animals from treatment groups were exposed to CF extract in drinking water, at a dose of 3.00 mg per animal daily, for 49 weeks, starting at the time of the carcinogenesis induction. Animals were sacrificed at 61 weeks of age, approximately 10 months after MNU administration. Our results suggested that CF extract was well tolerated by the animals and did not cause severe hepatic or renal toxicity. Furthermore, the animals exposed to the CF extract showed fewer inflammation areas on the dorsolateral prostate lobe than those not exposed to the CF extract, suggesting that this extract may be used as chemopreventive agent against prostate cancer and seems to have an antioxidant role. In conclusion, the studies with animal models of BPH and PCa add value to the study of prostate diseases and to test the efficacy of natural compounds, and their extracts.

Acknowledgments

This work was supported by European Investment Funds by FEDER/COMPETE/POCI - Operational Competitiveness and Internationalization Program and National Funds by Portuguese Foundation for Science and Technology, Minister of Science, Technology and Higher Education (FCT/MCTES) under the projects UIDB/04033/ 2020, LA/P/0126/2020 UIDB/50006/ 2020. Elisabete Nascimento-Gonçalves thanks FCT/ MCTES and European Social Funding through NORTE2020 for her PhD fellowship Grant Ref. SFRH/BD/ 136747/2018.

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***Correspondence:**

Paula Alexandra Oliveira. DVM, PhD
Centre for the Research and Technology of Agro-Environmental and Biological Sciences, University of Trás-os-Montes and Alto Douro, Vila Real, Portugal | Institute for Innovation, Capacity Building and Sustainability of Agri-food Production, Vila Real, Portugal
E-mail Address: pamo@utad.pt