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Título	Hexane partition from <i>Annona crassiflora</i> Mart. promotes cytotoxicity and apoptosis on human cervical cancer cell lines
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Resumo	Cervical cancer is the third most commonly diagnosed tumor type and the fourth cause of cancer-related death in females. Therapeutic options for cervical cancer patients remain very limited. <i>Annona crassiflora</i> Mart. is used in traditional medicine as antimicrobial and antineoplastic agent. However, little is known about its antitumoral properties. In this study the antineoplastic effect of crude extract and derived partitions from <i>A. crassiflora</i> Mart in cervical cancer cell lines was evaluated. The crude extract significantly alters cell viability of cervical cancer cell lines as well as proliferation and migration, and induces cell death in SiHa cells. Yet, the combination of the crude extract with cisplatin leads to antagonistic effect. Importantly, the hexane partition derived from the crude extract presented cytotoxic effect both <i>in vitro</i> and <i>in vivo</i> , and initiates cell responses, such as DNA damage (H2AX activity), apoptosis via intrinsic pathway (cleavage of caspase-9, caspase-3, poly (ADP-ribose) polymerase (PARP) and mitochondrial membrane depolarization) and decreased p21 expression by ubiquitin proteasome pathway. Concluding, this work shows that hexane partition triggers several biological responses such as DNA damage and apoptosis, by intrinsic pathways, and was also able to promote a direct decrease in tumor perimeter <i>in vivo</i> providing a basis for further investigation on its antineoplastic activity on cervical cancer.
Fomento	