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| Tipo                      | Periódico   |
| Título                    | Antiproliferative and antiangiogenic effect of <i>Amblyomma sculptum</i> (Acari: Ixodidae) crude saliva in endothelial cells <i>in vitro</i>  |
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| Resumo                    | Neovascularization, a process that includes vasculogenesis and angiogenesis, may be a physiological or pathologic event, but in any cases the phenomenon is related to the formation of vascular net and sprouting of endothelial cells from preexisting blood vessel. The tumor environment, which counts on the tumor cell proliferation, is plenty of proangiogenic factors, such as angiogenin, TGF ( $\alpha$ and $\beta$ ), FGF, VEGF, all of them playing a crucial role in angiogenesis, an important hallmark of cancer frequently related to a poor prognosis. Therefore, therapies focusing the inhibition of cancer neovasculogenesis have become an interesting strategy for the development of antitumor therapies. In this work, we investigate the effect of tick saliva on the human endothelial cells, in order to understand its inhibitory effects on angiogenesis. To this end, the HUVEC cells were used as model of angiogenesis <i>in vitro</i> and the anti-proliferative, anti-migratory, cytotoxicity was evaluated. Our data depicts that saliva impairs cell development by causing structural changes while precludes cell proliferation and migration, that are crucial events related to angiogenesis. Aiming the identification of the bioactive components related to antiangiogenic activity, saliva was analyzed through the Mass Spectrometry and among all molecules identified, disintegrins and cathepsin L seems to be primarily responsible for the antiangiogenic effects of saliva. |
| Fomento                   |   |