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• **Immunomodulatory effects of Aloe Vera on mice macrophages response in the presence of the fungus *Candida Albicans***

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Background: Natural products are important resources in herbal medicines and have been long used for prevention and treatment of many diseases. Aloe vera is one of these plants with medicines properties. Aloe vera has been shown to modulate the immune response. Candidiasis is one of the most common fungal infections and *Candida albicans* has become the fourth most common cause of hospital infections. Macrophages have been shown to play an essential role as the first line of defense against invading pathogen. In this article the effects of Aloe vera gel extract has been evaluated on macrophage activation. **Materials and methods:** 5 groups of the balb/c mice were infected with *Candida Albicans* and then allow the *Candida* to activated in one week. The Aloe Vera extract has injected to peritonea of the mice. Intraperitoneal macrophages were isolated and MTT assay was performed in order to evaluate viability of intraperitoneal macrophages. **Findings:** In vivo results show that all doses of the Aloe Vera extract 100, 50, 20, 10 mg/kg significantly increased cell viability in presence of mitogen but all doses of the Aloe Vera extract does not have an influence in viability of macrophages in absence of mitogen. **Results:** This study showed Aloe Vera extracts in the In vivo in presence of immune stimulator has an effective role in stimulating the immune system. more studies, such as isolation and purification of aloe vera components, are necessary to clarify the modulatory effects of aloe vera on macrophage function.

Keywords: aloe vera, Immunomodulator, *Candida Albicans*, Macrophage