

## عنوان مقاله:

A Review of New Treatments about Toxoplasmosis in 2016

## محل انتشار:

نخستین همایش ملی بیماری های مشترک بین انسان و دام (سال: 1395)

تعداد صفحات اصل مقاله: 1

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## خلاصه مقاله:

*Toxoplasma gondii* is an opportunistic parasite that affects approximately 30% of the world's population that can cause severe disorders in infants and pregnant women and can also be lethal in immunologically compromised individuals. The conventional treatment for this parasitic infection has remained the same since the 1950s, and its efficacy is limited to the acute phase of infection. Moreover, medicines have no impact on the tissue cysts of the parasite located predominantly in brain and muscle. Thus, there is an urgent need to develop new drugs and a gold standard treatment. BnSP-7, a Lys49 PLA2 homologue, is the most well studied toxin from *Bothrops pauloensis* venom. BnSP-7 presented significant cytotoxicity against host HeLa cells at higher doses, whereas lower doses produced low cytotoxicity. Pretreatment of *T. gondii* tachyzoites with BnSP-7 significantly reduced the adhesion of these parasites to HeLa cells. Thereby decreasing the adhesion, proliferation and consequently the invasion of the parasite in the host cell. Tamoxifen, which is an established inhibitor of the estrogen receptor, reduced parasite invasion and replication. The synthetic toxin cal14.1a from *Conus californicus*, decreased intracellular replication significantly while viability of the host cell was unaffected. Thai piperaceae plants extract is effective at inhibiting parasite growth in human foreskin fibroblast (HFF) cells -treatment of experimental mice. Garcinol isolated from *Garcinia indica*, that is a potent inhibitor of histone acetyltransferases, inhibits TgGCN5b, the only nuclear GCN5 family KAT known to be required for *Toxoplasma* tachyzoite replication. Sorghum bicolor red-leaf 3-deoxyanthocyanidins-rich extracts have potent in vitro inhibitory activity against proliferative stage of *T.gondii* parasites. *Echinacea purpurea* has been used for many years as an immunomodulator in different infectious processes. Findings showed a significant reduction in the number of tachyzoites in mice treated for 4 weeks with the *E. purpurea* aqueous extract. In This article we review new studies in 2016 that has potential to be a new therapeutic method for Toxoplasmosis.

## کلمات کلیدی:

Toxoplasmosis, *Bothrops pauloensis* venom, Tamoxifen, *Conus californicus*, Garcinol

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