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Phylogenetic analysis of metalloprotease from transcriptome of venom gland of Hemiscorpius lepturus

Hemiscorpius lepturusis a dangerous scorpion and referred to health concern issue in Khuzestan, Iran. The venom of H.lepturus is cytotoxic and its effect is similar to spider Loxosceles reclusa. Metalloproteinases are the important class of enzymes in the venom that has hemorrhagic activity. The early finding suggests the existence of metalloproteases in the transcriptome of venom gland of H.lepturus. Phylogenetic analysis was accomplished to reveal the evolutionary relationship of identified metalloproteases. The phylogenetic tree was constructed by Molecular Evolutionary Genetics Analysis software and neighbor-joining method. Results showed among three sequences, two metalloproteinases named HLMP1 and HLMP3 of H.lepturus were most close to spider P. tepidariorum. The third sequence named HLMP2 was different and formed an independent clade in the phylogenetic tree. The results suggest that the sequence of metalloproteases in the venom component of H.lepturus is similar to the spider than the scorpion.

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Perinuclear halo indicate Trichomonas vaginalis in Pap smear

Trichomonas vaginalis could be seen in Pap smears where it is reported, but because main concerned is placed on malignant cells in Pap smears, not much effort is done to search for this parasite in smears. In this study, 100 cervical and vaginal specimens were examined microscopically by the conventional Papanicolaou method and liquid base cytology (LBC) for the presence of Trichomonas vaginalis (T.vaginalis). 16% were infected with T.vaginalis while 10% of diagnosis based on both perinuclear halo and T. vaginalis presence although the association between perinuclear halo and T, vaginalis is statistically insignificant it is recommended to increase the number of the cases to prove or disprove the association