AND

AIM OF THE WORK

INTRODUCTION

Herpes simplex virus is a member of the family *Herpesviridae*, which also includes Varicella-Zoster virus, Epstein-Barr virus, and Cytomegalo virus. (***Liesegang, 1992***)

Of more than 70 herpes viruses in the animal world, only eight are associated with infection in humans. (***Drucker and Smileyl, 1992***).

Herpes simplex virus is a complex double stranded DNA which replicates in the nuclei of the infected cells (***Geoffrey et al., 1998***).

Mixed infections with different strains of HSV may result in more sever disease than infection with either strain alone. This phenomenon is important because it may facilitate the identification of virulence genes through the transfer of virulence determinants between complementing strains, and it may poses a problem in the use of attenuated HSV strains for vaccines and gene delivery vectors (***Kintner et al.,1995***).

Infection is spread by direct contact of skin or mucous membranes to infected secretions. The initial attack is generally self-limited and is often subclinical. However, herpetic disease is recurrent and a wide range of clinical manifestations can result from an infection with this agent. The most common site of primary infection in humans is the skin and mucous membrane innervated by trigeminal nerve. The virus is then transported via the nerve axon to its cell body

in the sensory ganglion where it persists in a latent state until reactivation. There is some indications that the human cornea may also harbor latent virus. (***Thomas and Rouse, 1997***).

Laboratory diagnosis of HSV is very important to evaluate the clinical cases, it varies according to the site of infection, it may be direct or indirect methods. Direct methods for diagnosis of HSV varies from direct staining, tissue culture, immunofluorescent technique, and polymerase chain-reaction. While indirect methods depend on detection of specific antibodies in the serum (***Hollannd and Schwartz, 1999***).

AIM OF THE WORK

The aim of this work is:

(1) Detection of HSV from corneal and conjunctival swabs by three different laboratory techniques (direct stain, direct immuno–fluorescence technique, and tissue culture).

(2) Comparison between the results of the used laboratory tests.

(3) Comparison between different factors that related to the patients as regards to the positive results.