

This study included 90 throat swabs collected from patients suffering from acute pharyngitis who attending to AL-Hilla General Teaching Hospital (ENT unit) during the period from October 2010 to January 2011. The age of the patients ranged from (3 to 63) years.

Only six isolates of *Streptococcus pyogenes* were obtained. It was observed that only four isolates had the fibrinolytic activity through the production of streptokinase enzyme, while two isolates failed to lyse fibrin, also the present study showed that streptokinase activity became apparent after 3 hours of incubation and clot began to decrease after 10-16 hours and disappeared completely after 24 hours of incubation.

Hyaluronidase activity was investigated, it was found that 50% (3) of GAS isolates give a positive result via the formation of a halo around the colony and this is an indicator of hyaluronidase activity. Specific primers for PCR techniques were used for the detection of sortase enzymes (A, B and C).

Sortase A was found existed in all GAS strains and this enzyme was designated as housekeeping enzyme. Sortase B and C was also detected, it was found that only two isolates were positive for both sortase B and C genes. However, only two isolates were found to have all these three enzymes whereas the others contained only the housekeeping one.