

## Abstract

Abortion is considered as one of the important clinical problems that may affect pregnant women. The present study is designed to focus on some abortion causes such as bacterial infections including Listeriosis, and certain viral infections such as Cytomegalovirus and for immunological and molecular detection of Cytomegalovirus and Listeriosis in Al-muthanna province during pregnancy should be considered a significant risk factor for adverse pregnancy outcomes in human. This study is carried out in Obstetric and Gyney Hospital in Al Muthanna Province during 26/11/ 2017 to 25/ 4/ 2018.

One hundred women who had single or recurrent abortion were selected for this study, and they were referred with a physician report for TORCH tests to determine the final diagnosis of pregnancy loss. The 50 controls were healthy pregnant women with a history of a normal pregnancy. Blood, swab and placenta have been collected for tests (ELISA and RT-PCR).

Indirect ELISA IgG assay was done to diagnosis human Listeriosis and Cytomegalovirus as causative agents of abortion. The results of an Indirect ELISA IgG were 38 (38%) for Cytomegalovirus and 10(10%) for *L. monocytogenes*. Real Time Polymerase chain reaction technique was done on DNA samples extracted from 60 endocervical swabs and 40 pieces of placenta, that is done by using SYBR Green I dye and diagnostic genes were UL83 and hlyA for Cytomegalovirus and *L.monocytogenes* respectively. The results showed 17(17%) and 7(7%) samples were positive for Cytomegalovirus and *L.monocytogenes* respectively. Mixed infection between two microorganisms were detected in two sera with the rate of 2% for Cytomegalovirus and *L. monocytogenes*.