

## Research no 1

### Seroprevalence of varicella-zoster virus among pregnant women in Fayoum Governorate, Egypt

By

Enas G. Ibrahim .1  
Wafaa Y. Abdel Wahed .2  
Hanaa M. Eid .3  
Wessam S. Deeb .4

Microbiology Department, Faculty of Medicine, Fayoum .1  
Public Health & Community Medicine Department, Faculty of .2  
Medicine, Fayoum University, Fayoum 63514, Egypt. .3  
Obstetric and Gynecological Department, Faculty of Medicine, Fayoum University, .4  
Faoyum, Egypt

Type of research: Joint International

Published in: Journal of the Egyptian Public Health Association 2019

#### Abstract

**Background:** Chickenpox infection acquired during pregnancy is a serious condition.

There may be congenital malformations and neonatal varicella syndrome with significant morbidity and mortality. Egypt has no routine varicella-zoster vaccination program. **Objective:** To assess the immune status against varicella-zoster virus (VZV) antibodies among a group of pregnant women and to study the relationship between

VZV seroprevalence and some sociodemographic characteristics. **Subjects and methods:** A descriptive cross-sectional study was conducted on a group of pregnant women (n=333) attending antenatal care (ANC) clinic at Fayoum University Hospital. Serologic testing for VZV was performed using ELISA through the years 2016–2017.

**Results:** VZV seroprevalence was detected in 294 (88.3%) of the 333 recruited pregnant women. Older age > 25 years old was significantly associated with low percent of VZV-negative antibodies (6.7% in versus 17.4% in younger age, OR (95%CI) 0.34 (0.17–0.70)), also having more than one child was significantly associated with a low percent of VZV-negative antibodies (8.2% versus 16.1% among participants with no children or having one child, OR 0.34(0.17–0.70). **Conclusions:** Despite the absence of a routine VZV vaccination program in Egypt, VZV immunity was high among pregnant women, but less than that reported in many developed countries. We recommend targeted vaccination for women in the reproductive age especially young and primipara.