

البحث السادس

عنوان البحث باللغة الانجليزية:

Clinical significance of viral loads in patients infected with SARS-CoV-2 in Fayoum University Hospitals

Abstract:

Background: Throughout unexplained cases of pneumonia, a new human coronavirus first found in Wuhan, China in December 2019 had spread worldwide. Viral loads from respiratory samples were measured and considered an indication of active virus replication and used for monitoring severe viral respiratory tract infections routinely.

Objective: is to evaluate if the nasopharyngeal viral load has any link with known clinical parameters at disease progression in cases infected with (SARS-CoV-2) during the early three months (May, June, July /2020) of the epidemic in Fayoum University Hospitals. **Methodology:** Nasopharyngeal swabs were taken from cases with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and viral loads were detected by real-time Reversed transcriptase polymerase chain reaction (RT-PCR) according to cycle threshold (Ct) where high viral load means Ct value <25, moderate viral load; Ct value is from 25 to 35 and low viral load means Ct value >35.

Results: Moderate and high NP viral load were significantly higher in patients with fever, upper respiratory tract symptoms, bone aches, and vomiting. High levels of both CRP (p=0.021) and CT findings (p=0.005) were significantly associated with moderate and high viral load. There were significant differences between viral loads groups as regards the occupation of HCWs (p=0.005).

Conclusion: SARS-CoV-2 viral load were high in the nasopharynx at the early phase of infection; also high viral load were noticed more in HCWs.

Key words: Viral loads; COVID-19; SARS-CoV-2