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Publicación anticipada

El Comité Editor de la Revista del Cuerpo Médico Hospital Nacional Almanzor Aguinaga Asenjo aprobó para publicación este manuscrito, teniendo en cuenta la revisión de pares que lo evaluaron y levantamiento de observaciones. Se publica anticipadamente en versión pdf en forma provisional con base en la última versión electrónica del manuscrito, pero sin que aún haya sido diagramado ni se le haya hecho la corrección de estilo. Siéntase libre de descargar, usar, distribuir y citar esta versión preliminar tal y como lo indicamos, pero recuerde que la versión electrónica final y en formato pdf pueden ser diferentes.

Advance publication

The Editorial Committee of the Journal Cuerpo Medico Hospital Nacional Almanzor Aguinaga Asenjo approved this manuscript for publication, taking into account the peer review that evaluated it and the collection of observations. It is published in advance in a provisional pdf version based on the latest electronic version of the manuscript, but without it having been diagrammed or style corrected yet. Feel free to download, use, distribute, and cite this preliminary version as directed, but remember that the final electronic and pdf versions may differ.

Citación provisional /Shahsuvaryan ML. Viral Conjunctivitis: Ocular Vigilance in COVID-19. Rev. Cuerpo Med. HNAAA [Internet]. 19 de septiembre de 2023 [citado 19 de septiembre de 2023];16(2). DOI: [10.35434/rcmhnaaa.2023.162.1989](https://doi.org/10.35434/rcmhnaaa.2023.162.1989)

Recibido / 30/04/2023

Aceptado / 20/08/2023

Publicación en Línea / 19/09/2023



Viral Conjunctivitis: Ocular Vigilance in COVID-19

Conjuntivitis viral: vigilancia ocular en COVID-19

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Conflict of interest: None

Proprietary interest: None

Financial support: None

Acknowledgement: None

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Dear Editor,

conjunctivitis is among the most common anterior segment diseases worldwide,¹ frequently seen by primary healthcare workers and ophthalmologists. No age group, gender and race are immune to it. Majority of cases are represented by viral conjunctivitis, manifesting by hyperemia, watery discharge and photophobia. The involvement is mild, unilateral or bilateral, with or without corneal involvement. Viral conjunctivitis is more frequent in adults.² Currently health professionals face a host of new challenges in the diagnosis and management of viral conjunctivitis. Irritated eyes represent one of the possible symptoms of SARS-CoV-2 (Severe acute respiratory syndrome coronavirus 2) infection.³

There is a growing body of evidence that SARS-CoV-2 affects anterior surface of the eye, commonly manifesting by viral conjunctivitis^{4,5} due to direct contact of virus with mucous membrane as a potential route for invasion- ab externo or due to bloodstream viral transmission – ab interno. Patients have been reporting redness in the eyes, itching, soreness, a burning sensation, watery eyes, and swollen lids. The incidence of conjunctivitis in patients positively tested for the COVID-19 is ranging between 0.8% and 31.6%.⁵ The meta-analysis conducted by Loffredo and colleagues⁶ showed 5.9% incidence of conjunctivitis, 4.1% in mild and 12.7% in severe illness cases respectively. In a systematic review and meta-analysis by Cao et al.⁷ the pooled prevalence rate of conjunctivitis/conjunctival congestion was 8%.

It is worthy to note the latest challenge caused by SARS-CoV-2 variant called Omicron (B.1.1.529), recognized and identified in Botswana and subsequently in South Africa in the early days of November 2021, but currently responsible for 98 percent of all global cases. A new sub-strain of Omicron officially called “BA.2” but nicknamed “stealth Omicron,” has emerged in the UK and is spreading fast. According to the UK Health Security Agency (UKHSA), the BA.2 Covid strain is thought to be an Omicron (BA.1) sub-strain, which has the potential to spread much faster than its predecessor. Recently it was claimed that conjunctivitis could

be a symptom of the Omicron variant,⁸ which highlights an importance of addressing a diagnosis issue in this emerging disease.

Based on findings of currently presented cases it will be concluded that conjunctivitis has shown different types of manifestation in COVID-19: initially without any sign of viral infection, with its subsequent development.^{9,10} or simultaneous presentation with any degree of disease severity.^{5,11}

At present ophthalmologists and health care workers should be aware of such evidenced ocular comorbidity in COVID-19 illness, as a conjunctivitis. Likelihood of this relationship should be borne in mind. Taken into account that conjunctiva serves as an entrance gate, since conjunctival epithelium containing angiotensin-converting enzyme 2 (ACE2) represent a target for SARS-CoV-2 virus,^{12,13} medical professionals should remain vigilant in all conjunctivitis cases, especially with asymptomatic patients and a rapid antigen test for COVID-19 will be done. Early identification and prompt management of patients with conjunctivitis from one hand can lessen COVID-19 disease severity and help achieve earlier resolution in patients, and, from other hand prevent spread of infection in medical and general communities.

Disclosure of potential conflicts of interest: The author has any potential conflicts of interest to disclose

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