

En la biopsia cutánea de la lesión se apreciaron estructuras fúngicas (esporas e hifas) en tejido conjuntivo dérmico y tejido celular subcutáneo, así como en los vasos de dermis superficial y profunda, y del tejido celular subcutáneo, con presencia de trombos intravasculares en gran parte de los vasos sanguíneos de pequeño y mediano calibre (fig. 1c).

En el cultivo de biopsia cutánea se apreció crecimiento de *Fusarium proliferatum*.

De los 4 hemocultivos, 2 fueron positivos para *Fusarium proliferatum*.

A pesar del cambio de antibioterapia e inicio de voriconazol intravenoso a dosis de 200 mg cada 12 h con dosis de carga, la paciente falleció a la semana del inicio del cuadro.

El ectima gangrenoso se ha asociado a menudo con *Pseudomonas aeruginosa*<sup>1</sup>, aunque en escasas ocasiones es causado por otras entidades infecciosas. Existen datos en la bibliografía sobre un espectro bacteriano más amplio con agentes gramnegativos como *Escherichia coli*, *Citrobacter freundii*, *Klebsiella pneumoniae* o *Morganella morganii*. Además, se ha informado que algunos hongos causan lesiones clínicamente similares, por ejemplo, especies de *Candida*, *Aspergillus* y *Curvularia*<sup>2</sup>.

Así, la definición de enfermedad para algunos autores viene determinada por el agente etiológico y para otros por las características clínicas. Sin embargo, el nombre se aplica con poca frecuencia a las infecciones por hongos. Esta confusión puede enmascarar una prevalencia más amplia de infecciones similares al ectima gangrenoso que, de otro modo, podrían haberse informado en un amplio espectro de enfermedades fúngicas.

La especie *Fusarium* es un hongo oportunista que causa infecciones diseminadas en pacientes inmunodeprimidos.

Dada la alta tasa de mortalidad de esta infección, es importante hacer un diagnóstico definitivo cuando se encuentran casos sospechosos. La afectación de la piel es la primera pista en la mayoría de los casos de fusariosis diseminada y, a menudo, ocurre en una etapa temprana de la enfermedad. En el 70% de los casos se reportan múltiples lesiones eritematosas maculares o papulosas dolorosas. Las lesiones suelen tener un centro necrótico parecido al ectima gangrenoso y se describen como lesiones similares a este<sup>3</sup>.

En pacientes inmunodeprimidos, la fusariosis a menudo se disemina y suele ir acompañada de afectación pulmonar, lo que resulta en una alta tasa de mortalidad, que puede ser superior al 50%<sup>4</sup>.

En ello radica la importancia crucial de la detección de cada lesión cutánea en pacientes con neoplasias hematológicas y pancitopenia, y la necesidad de realizar una biopsia de piel y un inicio temprano de antibióticos y antifúngicos, junto con factores estimulantes de neutrófilos para una rápida recuperación.

En conclusión, presentamos uno de los pocos casos en la literatura de una lesión de tipo ectima gangrenoso producida por *Fusarium proliferatum*, resaltamos la necesidad de una exploración dermatológica en estos pacientes y la importancia de una biopsia cutánea precoz de cualquier lesión para alcanzar un diagnóstico y pautar un inicio de tratamiento lo más temprano posible.

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<https://doi.org/10.1016/j.eimc.2020.11.016>

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## Guide for the screening of HCV infection in Spain, 2020



### Guía de cribado de la infección por el VHC en España, 2020

Spain has made significant progress on hepatitis C elimination after approval of the Strategic Plan for Hepatitis C in the Spanish National Health System (PEAHC) in 2015.<sup>1</sup> From 2015 to mid-2020, more than 135,000 people have received direct-acting antiviral agents (DAAs) against the hepatitis C virus (HCV). Besides, improvement has been made in understanding the country HCV infection's epidemiology and reinforcing awareness and community participation to prevent infection.

As part of the objectives of PEAHC, the Spanish Ministry of Health has recently published the Guide for the screening of HCV infection.<sup>2</sup> The guide has been developed by the Secretariat of the National Plan on AIDS and the Screening Programs Unit of the General Directorate of Public Health of the Ministry of Health. Collaborators include members from several institutions including the National Plan on Drugs, the National Epidemiology Center (Carlos

III Health Institute), the Epidemiology Services of the autonomous regions, the General Secretariat of Penitentiary Institutions, the Scientific Advisory Council of the PEAHC, several Scientific Societies (SEIMC, SEISIDA, AEEH, AEHVE, SEMFyC, SEMG, SEMERGEN), and Patient Associations and NGOs (PLAFHC Madrid, PLAFHC, CESIDA, Apoyo Positivo, FNETH, gTt-HIV). The document has been endorsed by the Population Screening Conference, the Regional Office of the World Health Organization (WHO) for Europe, and the Barcelona Institute of Global Health (See supplementary material).

The decision on the best HCV screening strategy and the recommendations for adequate implementation in the guide has taken into consideration different criteria. Firstly, the results of the 2nd Seroprevalence Study that places Spain as a country with a low prevalence of HCV infection.<sup>3</sup> According to this study, 0.22% of the country's population had active HCV infection, of whom 29.4% (approximately 22,478 people) were not diagnosed. Besides, approximately one in five of those diagnosed with active infection was not linked to care or receiving anti-HCV treatment, a situation primarily affecting the most vulnerable populations. The study results highlight the drastic decrease in the prevalence of active HCV infec-

tion in Spain over the last years and the improvement in some groups' quality of life, such as people with HIV coinfection. Notwithstanding, in recent years, an increase in new HCV infections and reinfections has been observed in men who have sex with men with sexual practices with a high risk of transmission in the context of drug use (Chemsex).

The screening recommendations consider the country burden of infection, the fact that more than 80% of people with active HCV have risk factors for infection, the absence of reliable evidence on the efficacy and cost-effectiveness of population screening, and the fact that screening in the presence of risk factors for HCV is already included in the portfolio of services of the Spanish National Health Service. Based on these pieces of evidence, and in order to optimize the available resources, screening is recommended exclusively for individuals with exposures or situations of risk for the transmission of HCV, such as injected or inhaled drug use, risky sexual relations, co-infection with HIV or HBV, health or esthetic procedures performed without the proper safety precautions, admission to prisons, and origin from countries with a medium or high prevalence of HCV infection. Screening for HCV infection is not recommended in asymptomatic people without exposure or risk situations.

Of note, the guide's coordinators have requested a study of other screening strategies' cost-effectiveness (population screening, screening of birth cohorts) to the Network of Health Technology Assessment Agencies and Benefits of the National Health System. The current recommendations will be reviewed based on the results of this study. Currently, and in light of the data described above, improving access to diagnosis and linkage to the follow-up and treatment of people with HCV infection is key.

The Guide includes other recommendations such as the one-step diagnosis of HCV infection following the recommendation of Clinical Microbiologists, Infectious Diseases specialists, and Hepatologists.<sup>4</sup> Tailoring of care in those more vulnerable is also encouraged. For example, initiatives on multidisciplinary care in centers for people with drug addiction, carrying out the diagnosis and dispensing treatment under the same roof. It is advised to integrate prevention and screening measures for HCV, HBV, HIV, and other sexually transmitted infections in primary care, hospitals, and sexual health clinics. The Guide acknowledges community organizations for their work in prevention and linkage to screening and treatment services.

The authors wish to thank the Editorial Committee of Enfermedades Infecciosas y Microbiología Clínica for the opportunity to

present this HCV infection screening guide. We encourage all professionals to read and disseminate it and contribute to eliminating hepatitis C in Spain.

## Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.eimc.2020.12.003.

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<https://doi.org/10.1016/j.eimc.2020.12.003>

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## Detection of SARS-CoV-2 genomic RNA on surgical masks worn by patients: Proof of concept



### Prueba de concepto: detección de material genético de SARS-CoV-2 en mascarillas quirúrgicas de pacientes

Dear Editor,

SARS-CoV-2 is a new pathogen that has emerged in Hubei province, China, on December 2019 and was declared pandemic on March 2020 by the World Health Organization (WHO). Coronaviruses are monopartite, single-strand RNA, positive sense, capped, and virions are enveloped.<sup>1</sup> The persistence of SARS-CoV-2 on surfaces varies considerably based on the type of material. Stability is higher on plastic and stainless steel than on copper and cardboard<sup>2</sup> and its persistence has also been established on high-touch surfaces in laboratories such as phones and keyboards.<sup>3</sup> Nasopharyngeal swab

is the recommended sample to detect SARS-CoV-2 but sampling requires trained staff with personal protective equipment, the procedure is uncomfortable for the patients, and may induce sneezing with the consequent risk of aerosol generation. Preliminary studies to detect viral genome on N95 masks have been performed<sup>4</sup> including SARS-CoV-2.<sup>5</sup> In Spain, the use of surgical masks is mandatory in almost all its territory. To our knowledge, there are no studies addressing this issue with surgical masks.

In this report, we show that SARS-CoV-2 RNA can be detected on surgical masks worn by patients for several hours and we propose that this may be an alternative non-invasive method to detect the presence of the virus.

We selected 4 patients that came to the Emergency ward in our tertiary care hospital with a positive nasopharyngeal sample for SARS-CoV-2. All of their clinical and demographic characteristics were recovered by clinical records. To process the masks we cut out an area of approximately 10 cm × 17 cm covering the nostrils and mouth excluding the outer layer in order to avoid possible false