Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Carta al Editor

Comentarios al documento *Recomendaciones de cribado GEPI-SEIMC para pacientes con sospecha de estrongiloidosis*

Comments to the document GEPI-SEIMC screening recommendations for patients with suspected strongyloidosis

Sr. Editor:

Recientemente el Grupo de Estudio de Patología Importada (GEPI) de la Sociedad Española de Enfermedades Infecciosas y Microbiología Clínica (SEIMC) ha publicado en su página web un documento titulado *Recomendaciones de cribado GEPI-SEIMC para pacientes con sospecha de estrongiloidosis*[1]. Aplaudimos la realización de este documento, extremadamente necesario para concienciar sobre la necesidad de cribar estrongiloidiasis en personas inmunodeprimidas o en riesgo de inmunosupresión, incluidas personas con infección por SARS CoV-2 que van a recibir tratamiento con corticoides y/u otros fármacos inmunosupresores[2,3], y para aportar recomendaciones sobre cómo realizar dicho cribado basadas en la evidencia científica actual. Sin embargo, hay varias apreciaciones que consideramos precisan puntualizarse.

En primer lugar, si bien coincidimos en que la técnica de elección para el cribado de la estrongiloidiasis es la serología, existen estudios que muestran una sensibilidad insuficiente de la misma en pacientes inmunodeprimidos[4], por lo que se necesita más evidencia para poder recomendar la serología como única técnica de cribado en población inmunosuprimida. De hecho, las recomendaciones de las últimas guías basadas en la evidencia son combinar la serología con métodos parasitológicos en pacientes ya inmunodeprimidos[5].

En segundo lugar y respecto a evitar el tratamiento empírico sistemático, existen evidencias científicas sólidas de que el tratamiento empírico presuntivo es una práctica coste-efectiva[6,7], e incluso ahorradora de costes, especialmente en pacientes inmunodeprimidos o en riesgo de inmunosupresión sin menoscabar los resultados en salud para los pacientes[7,8]. Consideramos que dicha evidencia debe ser tenida en cuenta a la hora de establecer recomendaciones. Además, en muchos centros españoles, incluidos algunos de los situados en zonas endémicas de estrongiloidiasis en España[9], no se dispone de dicha serología en el laboratorio local y los resultados tardan un tiempo inaceptablemente largo para retrasar el tratamiento de un paciente que se va a inmunosuprimir. Las recomendaciones actuales, realizadas previamente a la publicación de los estudios de coste-efectividad, son las de administrar un tratamiento empírico en pacientes inmunosuprimidos o candidatos a inmunosupresión si no se va a poder descartar la infección en un tiempo adecuado[5]. Consecuentemente, consideramos que esperar a que el paciente desarrolle manifestaciones de hiperinfestación o estrongiloidiasis diseminada para iniciar un tratamiento empírico es exponer al paciente a un riesgo innecesario. El tratamiento empírico debe ir destinado, precisamente, a evitar el desarrollo del síndrome de hiperinfestación o infección diseminada. Además, una vez se ha producido este y el paciente tiene síntomas compatibles con hiperinfección o con infección diseminada, la recomendación no debería ser el uso de ivermectina 200 mcg/kg en dosis única, pues esta es una pauta estudiada únicamente en personas inmunocompetentes sin enfermedad diseminada[10].

Por todo lo anteriormente expuesto, agradecemos a GEPI-SEIMC la publicación de estas necesarias recomendaciones y esperamos que estas puntualizaciones sean tenidas en cuenta en las próximas versiones del documento.

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A systematic review on rapid antigen test devices for SARS-CoV-2 in nursing homes: Useful, but handle with care

Una revisión sistemática sobre los test rápidos de antígenos para la detección del SARS-CoV-2 en centros residenciales: útiles, pero deben manejarse con cuidado

Dear Editor,

The COVID-19 pandemic has disproportionately affected Nursing homes (NHs), with mortality rates largely exceeding those of the general population, particularly during the first wave.[1,2] A recent study from England and Wales has estimated an 18-fold difference in mortality rates when figures were compared to the pre-pandemic time period, but this is a likely an underestimate given the low levels of testing in NHs, particularly when nasal swabs with subsequent Real-Time quantitative polymerase chain reaction (RT-qPCR) represented the only validated diagnostic items.[2]

As recently pointed out by Domínguez Fernandez et al.,[3] rapid antigen tests (RAT), with their reduced costs and turnaround times,[4] could significantly speed and scale up diagnoses, benefiting residents' and workers' safety. However, available evidence appears far more controversial. We specifically performed a systematic review and meta-analysis on RAT in NHs according to PRISMA guidelines (see Annex 1A for the detailed search strategy),[5] being able to retrieve 5 studies (Table 1), for a total of 1327 paired samples RAT vs. RT-qPCR from residents of NHs, three of them from Spain.[3,6–9]

Overall, RT-qPCR detected 337 SARS-CoV-2 positive cases (25.4%), with a pooled sensitivity of 75.8% (95% Confidence Interval [95%CI] 61.0–86.2) that was affected by substantial heterogeneity ($I^2 = 82\%$, $p < 0.01$), and a pooled specificity of 99.0% (95%CI 89.3–99.9) (see Annex 1B for details). Two studies included estimates of viral replication,[6,8] while other two studies reported RAT performances by symptom status.[8,9] Even though Escrivá et al.[7] included both symptom and viral activity statuses, reporting strategy impaired their inclusion in subgroup estimates. When sensitivity was calculated for samples characterized by cycle threshold values ≥ 25, an overall estimate of 25.8% was calculated, that increased to 67.3% in asymptomatic individuals irrespective of their viral replication status.

Diagnostic agreement, reported by means of Cohen's Kappa, ranged between 0.377 (95%CI 0.352–0.401)[8] and 0.927 (95%CI 0.909–0.944),[3] with a pooled estimate of 0.670 (95%CI 0.452–0.889), suggesting a moderate agreement despite the substantial heterogeneity ($I^2 = 100\%$, $p < 0.01$). Diagnostic Odds Ratio (DOR) was estimated in 95.552 (95%CI 16.125–565.859), i.e. the OR for the positive result among residents with SARS-CoV-2 was approximately 96 times higher than the OR for positive results among persons without SARS-CoV-2. Summary Receiver Operating Characteristic (SROC) Curve (Annex 1C) was estimated through a maximum likelihood estimation model (REML), and a fixed model. Not only both curves were quite asymmetrical, suggesting a substantial heterogeneity among retrieved studies, but the substantial difference between the curves suggested that a substantial threshold effect may present, i.e. higher content of viral antigen may lead to increased identification of positive cases by RAT.

In other words, real-world estimates suggest that actual reliability of RAT may be quite far from optimal, particularly for non-seriated testing strategy. As acknowledged by Dominguez-Fernández et al.,[3] in cases characterized by high viral load, RAT may be quite reliable,[6,8] but they exhibited substantial lack of sensitivity when employed in individuals that exhibit low viral replication. Indeed, RAT may be quite unreliable when employed to screen earlier stages of SARS-CoV-2 infections, or in individuals who, because of their even transitory lack of symptoms, may actively spread the infection not only among other residents, but also in NH workers failing to cope with appropriate preventive measures.[1,2] As a consequence, as suggested by McKay et al.,[9] early and frequent referral to RAT rather than a single and synchronous sampling campaign may be quite effective in identifying individuals with the greatest potential to transmit the virus.

In summary, as RAT are relatively easy to use, produce results in minutes, and do not require expensive laboratory instruments, they can provide actionable results, particularly during outbreaks, but require a rational and specifically tailored use. On the contrary, as previously stressed by Escrivá et al.,[7] the improper referral to instruments that can be affected by substantial lack of sensitivity may lead to potentially dismal consequences.