

caciones se relaciona en mayor medida con la técnica que con la vía de acceso<sup>2,3</sup>. La obtención de accesos vasculares guiada por ultrasonidos ha simplificado la técnica, minimizando las complicaciones. El acceso yugular interno ecoguiado permite una rápida canulación, reduciendo complicaciones pulmonares como pneumo o hemotórax, en comparación con el acceso subclavio, y minimizando complicaciones vasculares, en contraposición a la punción guiada por escopia o anatomía<sup>2,3</sup>. Asimismo, el acceso yugular facilitaría el acceso de los electrocatéteres al ventrículo derecho y con ello los procedimientos.

2. **Preservación de accesos venosos:** la gran mayoría de los implantes de dispositivos definitivos se realiza habitualmente por vía subclavia izquierda, incluso en pacientes que requieren previamente marcapasos temporal. Aunque el acceso femoral evitaría la trombosis de las venas del hemicuerpo superior, el previsible efecto a gran escala sería marginal como demuestra el hecho de que a la mayoría pacientes, incluidos en las series con acceso yugular, se les implanta un marcapasos definitivo<sup>2</sup>.
3. **Infecciones y tromboembolias:** Es bien conocido que los electrodos femorales se asocian con infección local y sepsis, así como con trombosis venosa profunda y embolia pulmonar. Los autores reportan una limitada aparición de infecciones y una ausencia de eventos trombóticos. Aportar información acerca de si fue empleada profilaxis infecciosa o tromboembólica podría aportar una valiosa información para comprender mejor el estudio<sup>4,5</sup>.
4. **Demora hasta el implante definitivo:** finalmente, querriamos destacar que la mayoría de las complicaciones aumenta a medida que se dilata el tiempo hasta el implante definitivo. Aunque la causa de la bradiarritmia pueda ser reversible, el grueso de los pacientes acabará siendo subsidiario de marcapasos definitivo. En este estudio, 32 de 35 pacientes (91,4%) recibieron marcapasos definitivo con una media hasta el implante de  $4,9 \pm 4,6$  días. Aunque los autores refieren que es un tiempo de espera corto, reducir estos tiempos, en caso de bradiarritmias previsiblemente no reversibles, podría conllevar una reducción relevante en las complicaciones al generalizar los procedimientos.

En conclusión, concordamos con los autores en la utilidad del empleo de electrodos de fijación activa para prevenir la dislocación de los electrodos. Sin embargo, con base en la información disponible actualmente, consideramos que el acceso yugular ecoguiado y la pronta implantación de los dispositivos definitivos debería considerarse la estrategia de elección.

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## Dexametasona en COVID-19: ¿un medicamento para todos?



### Dexamethasone in COVID-19: does one drug fit all?

Dear Editor,

The COVID-19 pandemic challenged clinicians worldwide to treat a new and unknown disease. With more than 95 million confirmed cases since its beginning<sup>1</sup>, a lot of effort has been made to identify the best possible treatments.

The RECOVERY trial<sup>2</sup> provides strong evidence in favor of the administration of 6 mg of dexamethasone for ten days once a day in COVID-19 patients, if requiring at least oxygen

supplementation (the incidence of death in the dexamethasone group compared to the usual care group was 23.3% vs 26.2% for patients receiving oxygen, and 29.3% vs 41.4% for patients under mechanical ventilation at the time of randomization). This finding changed the WHO therapeutic guidelines for patients with COVID-19<sup>3</sup> and triggered into clinicians the automatic binomial prescription: oxygen therapy-dexamethasone. In the current pandemic era, where everyone is searching for the magic bullet, and no clear evidence is available on any therapeutic agent capable to reduce mortality, having this option with such a familiar drug gave back to clinicians the feeling of having at least a weapon.

The trial findings were confirmed also in a recent meta-analysis<sup>4</sup> including more than seven thousand patients: overall mortality was significantly lower in the corticosteroid

teroids group (26% vs 28%, relative risk {RR} = 0.89 [95% confidence interval {CI} 0.82-0.96],  $p=0.003$ ). However, for COVID-19 patients not requiring oxygen the meta-analysis suggested an increase in mortality in patients receiving corticosteroids (17% vs 13%, RR = 1.23 [95% CI 1.00-1.62],  $p = 0.05$ ).

The rationale for the use of dexamethasone is the mitigation of the inflammatory organ injury that may occur during SARS-CoV-2 infection. In the RECOVERY Trial the benefit of dexamethasone was indeed clear when inflammatory lung damage was more likely to be common, that is supposed to be in those patients treated "more than 7 days after symptom onset". However, as mentioned by the authors of the trial, only a subgroup of severe COVID-19 patients showed significant elevation in inflammatory biomarkers (such as C-reactive protein and ferritin), and unfortunately the "inflammatory lung damage" was advocated but not assessed.

Beside the desired anti-inflammatory effect, dexamethasone is also known for its immunosuppressive properties, that can lower resistance to bacterial and viral infections through a cell-mediated mechanism. Although steroids were recently found not to affect time to negativization of nasopharyngeal swab in a cohort of 280 Italian patients<sup>5</sup>, the development of secondary opportunistic infections certainly remains a major issue, affecting patients' outcome.

Furthermore, as well as corticosteroids increase mortality in patients not requiring oxygen therapy<sup>4</sup>, it is reasonable to think that their effect among patients requiring low flow oxygen could be mixed. As in a previous study<sup>6</sup> that identified two different subphenotypes of acute respiratory distress syndrome, one of which was categorised by more severe inflammation, it is likely that also in COVID-19 patients different inflammatory patterns may occur. In support to this previous finding, a recent review and meta-analysis of COVID-19 studies focused on the role of cytokines and inflammatory biomarkers and found different mean levels of C-reactive protein between severe and critical COVID-19 patients (55.9  $\mu\text{g/mL}$  [CI 23.1-88.8  $\mu\text{g/mL}$ ]).

Beyond the initial enthusiasm after the trial results, leading to an almost indiscriminate adoption of dexamethasone in COVID-19 patients, we suggest that a more personalized prescription would lead to further improvements in patients' outcome. We think that, beside avoiding corticosteroids for patients not on oxygen, COVID-19 patients requiring oxygen should be screened for high or normal inflammatory biomarkers thresholds. Furthermore, for those patients who may benefit from corticosteroid treatment it is reasonable to investigate whether a higher or a lower dose of dexamethasone is most beneficial, and a clinical trial is currently ongoing randomising patients with severe hypoxia to receive either 6 or 12 mg of dexamethasone.<sup>7</sup>

This would serve to target inflammation only in those patients who would probably benefit from its modulation, while removing the burden of corticosteroids side effects in those patients without an inflammatory pattern who would probably not benefit from this therapy.

## Authors' contributions

All the authors have substantially contributed to the conception of the work, and to the drafting or revision; all the authors have approved the final version and agree to be accountable for all the aspects of the work.

## Conflicto de intereses

Los autores declaran no tener ningún conflicto de intereses.

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