

A) COMENTARIOS A ARTÍCULOS PUBLICADOS

The role of interleukin 6 in the pathogenesis of hyponatremia associated with Guillain-Barré syndrome

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Dear Editor,

We read with great interest the contribution by Monzón et al.¹ They reported a significant case of a man who had Guillain-Barré syndrome (GBS) with syndrome of inappropriate antidiuretic hormone (SIADH) and speculated that increased sensitivity to vasopressin in the renal tubule and a long-lasting hypo-osmolarity or antidiuretic substances might cause GBS-related SIADH. However, we would like to add a possible pathomechanism in the development of hyponatremia associated with GBS.

According to a previous study by Maimone et al.,² interleukin (IL)-6, a multifunctional cytokine, might be implicated in the immunopathogenesis of GBS. In their study, serum IL-6 levels were increased in six (26%) of 23 GBS patients, and detectable levels of IL-6 were also found in the cerebrospinal fluid in 13 (57%).² Using enzyme-linked immunospot assays, Press et al.³ found elevated numbers of IL-6-secreting blood mononuclear cells during the acute phase in patients with GBS.

Quite recently and importantly, Swart et al.⁴ depicted the cascade-like fashion of events initiated by an inflammatory stimulus (lipopolysaccharides), with tumor necrosis factor- α secreted first, IL-1 β second, and IL-6 last, suggesting possible pathways connecting IL-6 to vasopressin release. These pro-inflammatory cytokines are secreted into the systemic circulation to initiate the acute phase response which is involved in the innate immune system.⁵

Furthermore, Mastorakos et al.⁶ reported that plasma antidiuretic hormone levels were elevated after IL-6 injection in cancer patients, suggesting that IL-6 activated the magnocellular ADH-secreting neurons and that it might be involved in SIADH. Activation of the subfornical organ and the organum vasculosum of the lamina terminalis by IL-6 could eventually lead to thirst and increased vasopressin secretion by neurons from the supraoptic nucleus and paraventricular nucleus.⁴ The combination of antidiuresis and increased water intake may result in hyponatremia.

Therefore, there is a possibility that IL-6 may play a central role in the pathogenesis of hyponatremia associated with GBS. However, further studies are necessary to elucidate if IL-6 crosses the blood-brain barrier (BBB), or whether lipopolysaccharides cross the BBB and then increase IL-6 locally in the brain in the future.

Conflicts of interest

The authors have no conflicts of interest to declare.

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Neurotoxicidad por aciclovir-valaciclovir en enfermos con insuficiencia renal

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Sr. Director:

Hemos leído con gran interés el artículo de Quiñones et al.¹ sobre la aparición de cuadros de toxicidad secundarios a la introducción de nuevos tratamientos en pacientes con insuficiencia renal, que inicialmente pueden conducir a diagnósticos erróneos, como los autores bien mencionan.

Uno de los enfermos referidos por estos autores presentó un cuadro de neurotoxicidad por aciclovir. El aciclovir y su éster, el valaciclovir, son ampliamente utilizados en el tratamiento de la infección