mer and late Summer-beginning of autumn3. The disease is characterized by chronicity, distinguishing three phases. The first, localized early infection, where the first manifestation is usually migratory erythema. The second, disseminated early infection, with neurological manifestations (neuroborreliosis) and cardiac disorders. And the third, late or persistent infection (arthritis, encephalopathy). In many cases, facial paralysis (occurring in 5% of children with Lyme disease1) may be the only neurological symptom and it may develop even in the absence of previous migratory erythema1

Serology allows the diagnosis of Lyme disease by the determination of IgG and IgM antibodies and the comparison of two samples separated by a three- or four-week interval4. The oral antibiotic regimen includes amoxicillin 50 mg/kg divided into three doses and cefuroxime acetyl 30 mg/kg per day divided into two doses, both in regimens of 14 to 21 days. Doxycycline is recommended in children from 8 years of age at doses of 4 mg/kg per day divided into two doses. For the parenteral regimen, ceftriaxone 50-75 mg/kg intravenously in single dose<sup>5</sup>.

Since acute facial paralysis in children is a disease of good prognosis, several studies have described even better recovery rates in patients with neuroborreliosis compared to other causes<sup>2</sup>. Most patients diagnosed with Lyme disease do not have a history of stinging and the variety in the presentation should be suspected, even in the absence of a sting.

Iker López Garciarena, Irantzu Sinovas Varona Centro de Salud de Ermua, Vizcaya, Spain.

Ikerl.garciarena@hotmail.com

#### **Conflicting interests**

The authors declare no conflict of interest reated to this article.

## Authors' contributions, funding and ethical responsibilities

The authors have confirmed their authorship, the non-existence of funding and the maintenance of confidentiality and respect of the patients' rights in the author responsibilities document, publication agreement and assignment of rights to EMERGENCIAS.

#### Editor in charge

Manuel José Vázquez de Lima, MD, PhD.

Article not commissioned by the Editorial Committee and with external peer review

#### References

- 1 Esposito S, Bosis S, Sabatini C, Tagliaferri L, Principi N. *Borrelia burgdorferi* infection and lyme disease in children. Int J Infec Dis. 2013;17:153-8.
- 2 Drack FD, Weissert M. Outcome of peripheral facial palsy in children- A catamenstic study. Eur J Paediatr Neurol. 2013;17:185-91.
- 3 Guerrero A. Borreliosis de Lyme en España. Enferm Infecc Microbiol Clin. 2001;19:244-6.
- 4 Roca B. Borreliosis de Lyme. Med Clin (Barc). 2006;127:265-8.
- 5 Wormser GP, Dattwyler RJ, Shapiro ED, Halperin JJ, Steere AC, Klempner MS. The clinical assesment, treatment, and prevention of Lyme Disease, human granulocytic anaplasmosis, and babesiosis: Clinical Practice Guidelines by the Infectious Diseases Society of America. Clin Infect Dis. 2006;43:1089-134.

# Clinical practice, research, and teaching: the triad that marks emergency medicine

Asistencia, investigación y docencia: la tríada de la medicina de urgencias y emergencias

#### To the editor:

Excellent editorial by Llorens<sup>1</sup> in relation to the original article by Fernández-Guerrero et al.2 which clearly and objectively shows the increase in the scientific production of the emergency physicians in the last five-year period. Llorens expresses that it is necessary to believe that our work is not exclusively care, and to believe that there is time for research. A great truth. However, it should be made clear, not only care doctors have to believe this, but also those responsible for emergency departments (ED). Despite having no recognized specialty in Spain, Emergency Medicine (EM) has its own entity based on specific scenarios and therefore, as emergency physicians, we have the obligation to generate evidence and specific knowledge, which will no doubt only be possible if we cement our

EDs in the tripod of assistance, teaching and research, as any other hospital service. We have dignity and passion for the EM, but our supervisors, emergency coordinators and chiefs must also have these qualities. A good example of this are the initiatives such as independent clinical trials conducted exclusively in the Spanish HES<sup>3</sup>.

Ignasi Bardès, Javier Jacob, Carles Ferrè, Ferrán Llopis

Servicio de Urgencias, Hospital Universitari de Bellvitge, Barcelona, Spain.

i.bardes@bellvitgehospital.cat

#### **Conflicting interests**

The authors declare no conflict of interest reated to this article

## Authors' contributions, funding and ethical responsibilities

The authors have confirmed their authorship, the non-existence of funding and the maintenance of confidentiality and respect of the patients' rights in the author responsibilities document, publication agreement and assignment of rights to EMERGENCIAS.

#### **Editor in charge**

Òscar Miró, MD, PhD.

Article not commissioned by the Editorial Committee and with external peer review

### References

- 1 Llorens P. *Urgenciólogo* e investigador: una combinación posible e imprescindible. Emergencias. 2016;28:143-5.
- 2 Fernández-Guerrero IM, Burbano Santos P, Martín-Sánchez FJ, Hidalgo-Rodríguez A, Leal-Lobato MM, Riulla-Doce C, et al. Producción científica de los *urgenciólogos* españoles durante el quinquenio 2010-2014 y su comparación con el quinquenio 2005-2009. Emergencias. 2016;28:153-66.
- 3 Llorens P, Miró Ö, Herrero P, Martín-Sánchez FJ, Jacob J, Valero A, et al. Clinical effects and safety of different strategies for administering intravenous diuretics in acutely decompensated heart failure: a randomized clinical trial. Emerg Med J. 2014;31:706-13.