LETTERS TO THE EDITOR

Triaje accepted into the dictionary of the Royal Spanish Academy

Triaje ya está en el Diccionario de la Real Academia Española

To the editor:

I found very interesting the article published by Miró under the title "Triage ("triaje") already in the Dictionary of the Royal Spanish Academy" and I would like to make some contributions related to the history of triage.

The word triage comes from the French term trier which means classification or selection and was a term that was used in the agricultural fields. Its use in medical terminology is relatively recent and dates back to the nineteenth century. It was during the Napoleonic wars that Baron Domique Jean Larrey (1766-1842), chief surgeon of the imperial guard, received the following order from Napoleon: "Soldiers who do not have the capacity to recover must be left on the front lines, you should only bring those who can be recovered to the hospital"2. The French physician had no choice but to train military medical personnel to identify the seriousness of the soldiers' injuries, and only those who could recover would be evacuated in horse-drawn carriages ("flying ambulances") to the medical post to receive timely care2. Dr. Larrey was adamant in this regard: "Those whose injuries endanger their lives should receive immediate attention, regardless of rank or distinction; while those with minor injuries should wait."

Sometime later (1846), British naval surgeon John Wilson made an important contribution in the history of triage: he argued that to make their efforts more effective, surgeons should focus on patients who needed immediate treatment and who were expected to make it, whereas treatment would have to be postponed in those with less serious injuries and those whose wounds were probably fatal with or without immediate medical intervention.

During World War I the triage system was substantially modified so that the wounded were sent to appropriate hospitals in motorized ambulances³. This was mainly due to the appearance of new war machines (tanks, machine guns) and the introduction of poisonous gases, which resulted in a large number of potentially treatable wounded soldiers.

Throughout World War II, triage was further refined through specific selection activities and the use of mobile field hospitals³. It should be noted that, parallel to military development during this war, such revolutionary treatments as plasma or penicillin had appeared, which could not be applied on a massive scale to all wounded. The next major breakthrough took place during the Korean War by incorporating helicopters into the evacuation of the wounded.

To understand the benefits of triage during wars, the following data is suffice: the average time since a soldier was wounded until he received adequate treatment fell from 12-18 h during World War II to 2-4 h in the Korean War, and less than 2 hours in the Vietnam War. During the following decades, these military experiences were used for the benefit of the civilian population in emergency situations, being from the nineties when the work began to realize universal triage scales.

Pedro Gargantilla Madera

Profesor de Historia de la Medicina, Universidad Francisco de Vitoria, Spain. pgargantilla@yahoo.es

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 Miró O. Triaje ya está en el Diccionario de la Real Academia Española. Emergencias. 2016;28:285.
- 2 Illescas Fernández G. Triage: atención y selección de pacientes. Trauma. 2006;9:48-56.
- 3 López Resendiz K, Montiel Estrada MD, Licona Quezada R. Triage en el servicio de urgencias. Med Int Mex. 2006;22:310-8.
- 4 Baker R, Strosberg M. Triage and equality: an historical reassessment of utilitarian analyses of triage. Kennedy Inst Ethics J. 1992;2:103-23.

Peripheral facial paralysis, a presentation of Lyme disease

Parálisis facial periférica: otra forma de presentación de enfermedad de Lyme

To the editor:

Historically, otitis media has been the most frequently identified cause of facial paralysis in children. However, over the past 20 years, a significant increase in facial paralysis associated with *Borrelia burgdorferi* infection has been observed¹. Here is a case.

A 9-year-old girl with no history of interest who in the month of June came to the consultation due to a fever of 39°C, general malaise and asthenia of 48 hours of evolution. Initially, a non-specific viral infectious process was suspected. On the fifth day of the onset of the left-sided peripheral facial paralysis, she showed signs of diplopia to distant objects that was accentuated when looking to the left (later confirming paralysis of VI pair homolateral left cranial nerve). At that time, and before the symptoms of neurological focal, oral corticoid treatment began. Analytical, with acute phase reactants, and cerebrospinal fluid (CSF) analysis were normal. Blood cultures were negative, and serologies were pending. The oral corticoid treatment was maintained for 15 days spontaneously improving the symptomatology. Subsequently, the serology was positive for IgG Borrelia burgdorferi confirmed by ELISA and Western Blot (no peripheral blood smears). Treatment with amoxicillin was initiated at 500 mg/8 h for 21 days. Serologies after 3 weeks were negative. The clinical evolution was favourable, confirming the symptomatology of facial paralysis as a form of acute neurological presentation.

Lyme disease is a multisystem disease caused by a group of related spirochetes, *Borrelia burgdorferi*, which are transmitted by tick bites belonging to some species of the genus lxodes². Cases around the world have been described (in Spain, especially on the Cantabrian coast), with periods of maximum activity in Spring, early Sum-

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 ery-

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 dose⁵.

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 causes². 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 Llorens¹ 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 (ÉM) 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 HES³.

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 Ò, 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.