

pues había descritos varios casos de infecciones causadas por este microorganismo que se presentaron como ceguera súbita, si bien en población pediátrica⁸. En cuanto a *N. meningitidis*, solo encontramos un caso⁸. Siguiendo con este aspecto, también debemos reseñar que la punción lumbar se realizó tras desinfectar el área con povidona yodada, y se ha descrito una falsa reacción positiva debido a la interferencia de este producto en la aglutinación del LCR⁹. En nuestro caso descartamos que sea un falso positivo ya que la determinación de genosubtipo y ST se hace mediante amplificación y secuenciación a partir del ADN presente en la muestra.

Las atípicas características del cuadro, junto con el análisis del LCR, podían hacer pensar en un cuadro no infeccioso, y a este respecto sí que debemos reseñar la no desdeñable frecuencia (8%) con que *N. meningitidis* se presenta en líquidos cefalorraquídeos de características normales (ni siquiera con aumento de celularidad)¹⁰.

Concluimos pues que es necesario conocer la epidemiología de *N. meningitidis* en nuestra área y la historia epidemiológica de los casos concretos, así como conocer la procedencia geográfica o los antecedentes de viajes recientes para poder sospechar la implicación de otros serogrupos en la enfermedad meningocócica. Pensamos que es de crucial importancia conseguir la caracterización de las cepas mediante otras tecnologías que exceden las dotaciones de la mayoría de laboratorios de microbiología (como la aglutinación convencional frente a serogrupos A, B y C) y que están disponibles en el Centro Nacional de Microbiología. Todo ello mejora enormemente el conocimiento epidemiológico de la enfermedad meningocócica para la ulterior puesta en marcha de medidas de salud pública como la profilaxis o las vacunaciones.

Agradecimientos

A la Dra. María José Aldea, que realizó el aislamiento de la cepa en líquido cefalorraquídeo; a la Dra. Begoña Gargallo, que asistió al paciente en el servicio de urgencias.

Bibliografía

1. Rentero Z, Romero-Gómez MP. Enfermedad meningocócica invasiva por *Neisseria meningitidis* del serogrupo Y. *Enferm Infecc Microbiol Clin*. 2011;29:555–6.
2. Stephens DS. Biology and pathogenesis of the evolutionarily successful, obligate human bacterium *Neisseria meningitidis*. *Vaccine*. 2009;27:B71–7.
3. Hedberg ST, Törös B, Fredlund H, Olcén P, Mölling P. Genetic characterisation of the emerging invasive *Neisseria meningitidis* serogroup Y in Sweden, 2000 to 2010. *Euro Surveill*. 2011;16:19885.
4. Abad R, Agudelo CI, Brandileone MC, Chanto G, Gabastou JM, Hormazabal JC, et al. Molecular characterization of invasive serogroup Y *Neisseria meningitidis* strains isolated in the Latin America region. *J Infect*. 2009;59:104–14.
5. Racoosin JA, Whitney CG, Conover CS, Díaz PS. Serogroup Y meningococcal disease in Chicago, 1991–1997. *JAMA*. 1998;280:2094–8.
6. Clarke SC, Reid J, Thom L, Denham BC, Edwards GFS. Meningococcal disease due to serogroup Y in Scotland, 1992–1999. *Br J Biomed Sci*. 2001;58:17–9.
7. Tsang RS, Henderson AM, Cameron ML, Tyler SD, Tyson S, Law DK, et al. Genetic and antigenic analysis of invasive serogroup Y *Neisseria meningitidis* isolates collected from 1999 to 2003 in Canada. *J Clin Microbiol*. 2007;45:1753–8.
8. Moreno Montesinos M, Aguilar Alfaro L, Pinan Lopez E, Luengo Sanz I. Ceguera cortical en el curso de meningitis por *Haemophilus influenzae* tipo B. *An Esp Pediatr*. 1990;32:353–4.
9. D'Amato RF, Hochstein L, Fay EA. False-positive latex agglutination test for *Neisseria meningitidis* groups A and Y caused by povidone-iodine antiseptic contamination of cerebrospinal fluid. *J Clin Microbiol*. 1990;28:2134–5.
10. Coll MT, Uriz MS, Pineda V, Fontanals D, Bella F, Nava JM, et al. Meningococcal meningitis with "normal" cerebrospinal fluid. *J Infect*. 1994;29:289–94.

Carmen Aspiroz^{a,*}, Raquel Abad^b, Pascual Laguardia^c
y Julio A. Vázquez^b

^a Laboratorio de Microbiología, Hospital Royo Villanova, Zaragoza, España

^b Laboratorio de referencia de meningococos, Centro Nacional de Microbiología, Majadahonda, Madrid, España

^c Unidad de Cuidados Intensivos, Hospital Royo Villanova, Zaragoza, España

* Autor para correspondencia.

Correo electrónico: mcaspiroz@salud.aragon.es (C. Aspiroz).

<http://dx.doi.org/10.1016/j.eimc.2012.04.002>

Anaplastic large cell lymphoma as a cause of rapidly appearing subcutaneous nodules in an HIV-infected patient

Nódulos subcutáneos de rápida aparición como forma de presentación de linfoma Ten paciente con infección por VIH

To the Editor,

AIDS patients have an increased risk of cancer, and one third of them will eventually develop a tumour. The risk of non-Hodgkin lymphomas (NHL) is much higher than in immunocompetent individuals.¹ However, this risk has decreased since highly active antiretroviral treatment (HAART) was introduced, and the frequency has now been reported to be 1–4% in modern series.² T-cell derived lymphomas are uncommon and represent less than 3% of NHL, and they usually present worse outcomes than B-cell derived ones.³ We report a patient with AIDS who developed a rapidly evolving T-cell type NHL.

A 50 year-old patient was admitted to hospital due to fever, weight loss and malaise for the past 3 weeks. He had a history of intravenous drug use and was diagnosed with HIV infection and hepatitis C virus-associated liver disease 11 years earlier. One year before the current admission he suffered P. jiroveci pneumonia, but refused to take HAART or prophylactic drugs against

opportunistic infections. The physical examination was remarkable for low body weight (body mass index 17 kg/m²), and enlargement of the liver and spleen. There were no palpable lymph nodes. Blood analyses revealed a normocytic anaemia, a markedly increased ESR, 14 CD4 cells/μl, and 1,480,000 HIV copies/μl. Chest X-ray revealed a slight interstitial pattern. All microbiological tests were negative. A CT scan revealed a 3 cm × 5 cm necrotic mediastinal lymph node, with an inconclusive biopsy. A bone marrow biopsy showed non-specific abnormalities. In the following days subcutaneous painful nodules appeared in the abdomen. They were about 2 cm in diameter, but the size changed, enlarging or decreasing over a few days. An excisional biopsy of one of these nodules revealed a dense infiltrate of lymphoid cells with horse-shoe nuclei in the hypodermis, with abundant expression of Ki67 in most cells (a cell proliferation marker) and positive staining for CD3, CD4, CD30, and EMA, being negative for CD8, CD15, CD20, ALK, LMP1, HHV8, consistent with ALK-negative anaplastic large cell lymphoma of T-cell type. Due to the poor patient status, HAART with atazanavir/ritonavir, lamivudine and abacavir was initiated prior to chemotherapy. However, the patient deteriorated rapidly and died 2 weeks later due to a lung infection.

Unlike from lymphomas derived from B-cells, T-cell lymphomas tend to be extranodal, with a higher propensity to affect skin and bone marrow.^{4,5} Among them the peripheral T-cell lymphoma

is the most frequent, while other subtypes, such as angioimmunoblastic and anaplastic large cell lymphoma (ALCL) are less common. Less than 40 cases of ALCL have been reported in HIV-infected patients.^{6,7}

ALCL was first characterised by Stein, who described a new type of lymphoma consisting of large anaplastic lymphoid cells with a strong expression of CD30, and a tendency to grow cohesively and invade lymph node sinuses.⁸ As in our case the common type is characterised by sheets of large lymphoid cells with horseshoe-shaped nuclei containing multiple nucleoli. Tumour cells have an abundant cytoplasm with vacuoles and an increased Golgi region. Most cases of ALCL express T-cell markers. The CD3 complex (TCR) is one of the most commonly expressed T-cell antigens, whereas unlike that of our patient CD4 or CD8 expression is less common.⁹ Some ALCLs are associated with a 2;5 chromosomal translocation encoding the tyrosine kinase anaplastic lymphoma kinase (ALK).¹⁰ It is assumed that both CD30 and ALK are involved in the growth and replication of the tumour cells.⁷

ALCL in HIV-infected patients has a distinct course, being much more aggressive than in immunocompetent patients. Although it is usually associated with extranodal involvement and systemic symptoms,⁵ presentation with rapidly appearing painful subcutaneous nodes, as in our patient, is very rare. Two clinical forms of ALCL have been described, systemic and cutaneous.⁷ Although the skin may be involved in both forms, in systemic cases the hypodermis is affected, but characteristically the dermis is preserved. This was the pattern in the case reported here. As in this case, ALCL tends to affect patients with severe immunodepression, and contrary to cases in non-infected population, rarely expresses ALK, which is associated with better responses to chemotherapy.^{4,9} Immune reconstitution by HAART is crucial. Anti-neoplastic regimens are frequently considered, but the prognosis is poor, with a median survival of 5 months.^{5,10}

Although uncommon, clinicians caring for patients with HIV infection should be aware of this tumour, especially in patients presenting with swollen lymph nodes, or subcutaneous nodes. Since it affects patients with severe immunodeficiency, and has an ominous prognosis, good control of HIV infection and subsequent immunodepression is the best preventive strategy.

Bibliografía

1. Grulich AE, van Leeuwen MT, Falster MO, Vajdic CM. Incidence of cancers in people with HIV/AIDS compared with immunosuppressed transplant recipients: a meta-analysis. *Lancet*. 2007;370:59-67.
2. Stebbing J, Gazzard B, Mandalia S, Teague A, Waterston A, Marvin V, et al. Antiretroviral treatment regimens and immune parameters in the prevention of systemic AIDS-related non-Hodgkin's lymphoma. *J Clin Oncol*. 2004;22:2177-83.
3. Arzoo KK, Bu X, Espina BM, Seneviratne L, Nathwani B, Levine AM. T-cell lymphoma in HIV-infected patients. *J Acquir Immune Defic Syndr*. 2004;36:1020-7.
4. Castillo JJ, Beltran BE, Bibas M, Bower M, Collins JA, Cwynarski K, et al. Prognostic factors in patients with HIV-associated peripheral T-cell lymphoma: a multicenter study. *Am J Hematol*. 2011;86:256-61.
5. Perez K, Castillo J, Dezube BJ, Pantanowitz L. Human immunodeficiency virus-associated anaplastic large cell lymphoma. *Leuk Lymphoma*. 2010;51:430-8.
6. Stein H, Mason DY, Gerdes J, O'Connor N, Wainscoat J, Pallesen G, et al. The expression of the Hodgkin's disease associated antigen Ki-1 in reactive and neoplastic lymphoid tissue: evidence that Reed-Sternberg cells and histiocytic malignancies are derived from activated lymphoid cells. *Blood*. 1985;66:848-58.
7. Stein H, Foss HD, Durkop H, Marafioti T, Delsol G, Pulford K, et al. CD30(+) anaplastic large cell lymphoma: a review of its histopathologic, genetic, and clinical features. *Blood*. 2000;96:3681-95.
8. Amin HM, Lai R. Pathobiology of ALK+ anaplastic large-cell lymphoma. *Blood*. 2007;110:2259-67.
9. Savage KJ, Harris NL, Vose JM, Ullrich F, Jaffe ES, Connors JM, et al. ALK-anaplastic large-cell lymphoma is clinically and immunophenotypically different from both ALK+ ALCL and peripheral T-cell lymphoma, not otherwise specified: report from the International Peripheral T-Cell Lymphoma Project. *Blood*. 2008;111:5496-504.
10. Nava VE, Cohen P, Kalan M, Ozdemirli M. HIV-associated anaplastic large cell lymphoma: a report of three cases. *AIDS*. 2008;22:1892-3.

Javier Riancho^{a,*}, Carmen Gutiérrez-Vela^b, Raquel Sánchez^c, Carmen Valero^c

^a Service of Neurology, Hospital U.M. Valdecilla, University of Cantabria, Santander, Spain

^b Service of Pathology, Hospital U.M. Valdecilla, University of Cantabria, Santander, Spain

^c Service of Internal Medicine, Hospital U.M. Valdecilla, University of Cantabria, Santander, Spain

* Corresponding author.

E-mail address: jariancho@humv.es (J. Riancho).

<http://dx.doi.org/10.1016/j.eimc.2012.04.001>

Are HIV-infected patients a high-risk population for hepatitis E virus infection in Spain?

¿Son los pacientes VIH positivos un grupo de riesgo para la infección por virus de la hepatitis E en España?

To the Editors,

We read the article by Rodríguez-Frías et al.¹ with interest. The authors reported a seroprevalence of anti-HEV antibodies (IgG anti-HEV) between 2.2% and 7% in Spain. However, the prevalence of anti-HEV antibodies varies according to the population included in the study, and is even much higher in HIV infected patients. Data on the frequency of anti-HEV antibodies in these patients in Spain are scarce, and it is a controversial issue in other countries, such as England where Feane et al.² reported a similar seroprevalence in controls and patients with HIV infection.

Therefore, we tested 178 plasma samples from 178 HIV-infected patients who attended our Infectious Disease Department for monitoring of HAART therapy between December 2011 and January 2012. Among them, 140 (78.65%) were males with a mean age of 46 years (range: 20-78). IgG anti-HEV antibodies were detected in

serum by a commercial enzyme immunoassay (EIA) kit (HEV Ab, DiaPro Diagnostic Bioprobes, Milan, Italy) following the manufacturer's instructions. All positive samples were studied further for the presence of IgM anti-HEV antibodies (HEV IgM, DiaPro Diagnostic Bioprobes, Milan, Italy). A result was considered positive by both tests when the ratio of the sample optical density and the cut-off value was higher than 2. Positive results by EIA were confirmed by Western blot analysis (RecomBlot HEV IgG/IgM; Mikrogen, Martinsried, Germany). In addition, HEV RNA was amplified by reverse transcriptase (RT)-nested PCR³ in all serum samples with IgG or IgM anti-HEV. All the patients included in this study were living in urban or the surrounding areas of Madrid. IgG anti-HEV antibodies were found in 18 out of 178 (10.11%). IgM anti-HEV antibodies were detected in 1 out of 18 IgG anti-HEV positive samples, suggesting acute or recent infection. HEV RNA was positive in a IgG anti-HEV positive patient. None of them presented clinical symptoms related to viral acute hepatitis currently or in recent years. ALT and AST were normal in all the patients who had IgG, IgM anti-HEV and/or HEV RNA in serum.

The seroprevalence of HEV infection has been studied in other probable risk groups, such as immigrants in Madrid⁴ (Table 1). Our results showed similar frequencies of detection of IgG anti-HEV