remitting encephalitis, especially in immunocompromised individuals.[1,5–8] Patients may also present predominantly temporal MRI signal alterations that subsequently resolve. However, neuroimaging results may also be strictly normal.[2] CSF usually shows variable lymphocytic pleocytosis (9-155 cells/μL) and eventually variable high protein and low glucose levels.[1,2,7] Given the lack of randomised clinical trials, there is no current consensus on treatment. The clinical practice guidelines of the Infectious Diseases Society of America recommend ganciclovir, with a risk of developing resistance, or foscarnet; cases have been published in which both drugs were administered in combination.[2,7] Prognosis is generally good.[2]

In our case, the patient developed similar symptoms to those reported in the literature, with the peculiarity that he presented co-infection with influenza B virus, which made it impossible to exclusively attribute some manifestations to HHV-6. Seizures have been described in adult patients with influenza virus infection.[9] Cases of co-infection have been reported in a Japanese paediatric population,[3,4] with ours being the first case in an immunocompetent adult, to our knowledge. It has been suggested that primary infection with influenza virus may cause a transient state of immunosuppression, thus triggering viral reactivation.[3,4]

Despite its rareness, we must consider HHV-6 in the differential diagnosis of lymphocytic meningoencephalitis of unknown origin in immunocompetent adults, especially when the patient presents a trigger factor favouring reactivation, such as influenza virus infection.

Conflicts of interest

The authors have no conflicts of interest to declare.

References

1. Krishnan P, Ramadas P, Chakravarty R, Sah B. A rare and fatal case of viral encephalitis in an immunocompetent host. Am J Med Sci. 2017;353:194–5, http://dx.doi.org/10.1016/j.amjms.2016.07.006.
2. Yilmaz M, Yasar C, Aydin S, Derin O, Polat B, Ertan G, et al. Human Herpesvirus 6 encephalitis in an immunocompetent pregnant patient and review of the literature. Clin Neurol Neurosurg. 2018;171:106–8, http://dx.doi.org/10.1016/j.clineuro.2018.05.026.
3. van Zeijl J, Bakkers J, Wilbrink B, Melchers W, Mullaart R, Galama J. Influenza-associated encephalopathy: no evidence for neuroinvasion by influenza virus nor for reactivation of human herpesvirus 6 or 7. Clin Infect Dis. 2005;40:483–5, http://dx.doi.org/10.1086/427027.
4. Sugaya N, Yoshikawa T, Miura M, Ishizuka T, Kawakami C, Asano Y. Influenza encephalopathy associated with infection with human herpesvirus 6 and/or human herpesvirus 7. Clin Infect Dis. 2002;34:461–6, http://dx.doi.org/10.1086/338468.
5. Yao K, Honarmand S, Espinosa A, Akhyani N, Glaser C, Jacobson S. Detection of human herpesvirus-6 in cerebrospinal fluid of patients with encephalitis. Ann Neurol. 2009;65:257–67, http://dx.doi.org/10.1002/ana.21611.
6. Shahani L. HHV-6 encephalitis presenting as status epilepticus in an immunocompetent patient. BMJ Case Rep. 2014, http://dx.doi.org/10.1136/bcr-2014-205880, 2014: bcr2014205880.
7. Troy S, Blackburn B, Yeom K, Finley Caulfield A, Bhangoo M, Montoya J. Severe encephalomyelitis in an immunocompetent adult with chromosomally integrated human herpesvirus 6 and clinical response to treatment with foscarnet plus ganciclovir. Clin Infect Dis. 2008;47:e93–6, http://dx.doi.org/10.1086/593315.
8. Sawada J, Nakatani-Enomoto S, Aizawa H, Katayama T, Ito T, Aburakawa Y, et al. An adult case of relapsing human herpesvirus-6 encephalitis. Intern Med. 2007;46:1617–20, http://dx.doi.org/10.2169/internalmedicine.46.0239.
9. Ruisanchez-Nieva A, Martinez-Arroyo A, Gomez-Beldarrain M, Bocos Portillo J, Garcia-Monco J. Influenza-associated seizures in healthy adults: Report of 3 cases. Epilepsy Behav Case Rep. 2017;8:12–3, http://dx.doi.org/10.1016/j.ebcr.2017.01.003.

R. Jiménez Bolaños*, A. Díaz Díaz, I. Sánchez-Miranda Román, J.P. Castellano Santana

Servicio de Neurología, Hospital Universitario Insular de Gran Canaria, Las Palmas de Gran Canaria, Spain

* Corresponding author.
E-mail address: rayco.jb.92@gmail.com (R. Jiménez Bolaños).

https://doi.org/10.1016/j.nrleng.2020.06.006
2173-5808/

Jansen-de Vries syndrome. First case diagnosed in Spain☆

Síndrome de Jansen-de Vries. Primer caso diagnosticado en España

Dear Editor,

Jansen-de Vries syndrome (JDVS: MIM#617450), also known as ''intellectual developmental disorder with gastrointestinal difficulties and high pain threshold (IDDGIP),'' is an autosomal dominant disease[1,2] described in at least 20 patients[1]; to our knowledge, the patient presented here is the first case to be diagnosed in Spain. In addition to its extreme rarity, its interest resides in an atypical pattern of obsessive sex drive and the absence of intellectual disability.

The *PPM1D* gene encodes protein phosphatase Mg^{2+}/Mn^{2+} dependent 1D, a member of the PP2C family of serine/threonine protein phosphatases. The gene participates in the negative regulation of p53-dependent cellular stress.[3] Jansen et al.[2] were the first to identify de novo frameshift or truncating mutations in exons 5 and 6 of *PPM1D* as the cause of a syndrome characterised by a peculiar phenotype, intellectual disability, language and behavioural impairment, gastrointestinal difficulties with cyclic vomiting,[2] hypersensitivity to sound, and high pain threshold.[2,4]

☆ Please cite this article as: Martín Fernández-Mayoralas D, Fernández-Perrone AL, Jiménez De Domingo A, Alba Menéndez A, Fernández-Jaén A. Síndrome de Jansen-de Vries. Primer caso diagnosticado en España. Neurología. 2021;36:330–332.

Figure 1 Phenotype of the patient at the age of 7. Wide forehead; low-set, wide ears with backward rotation (the right ear can be seen); mild hypotelorism; bilateral epicanthus, predominantly on the left; bulbous nose with small nares; smooth philtrum; thin upper lip and thick lower lip; and large mouth.

Our patient is an 8-year-old boy who was previously assessed due to mild psychomotor retardation (free ambulation at 2 years) and severe language and communication delay (first words at 4 years).

Harmonious intrauterine growth retardation was observed during pregnancy. The child was born by vaginal delivery at 39 weeks: Apgar score: 9/10; weight: 2.175 kg (first percentile); length: 47 cm (third percentile); head circumference: 33 cm (fifth percentile). We initially observed hypotonia, feeding difficulties, gastro-oesophageal reflux disease, and constipation alternating with intermittent diarrhoea over the years.

The physical examination performed when the patient was 7 years old revealed a weight of 20.4 kg (13th percentile), height of 112 cm (second percentile), and head circumference of 48.5 cm (third percentile). We also observed subtle dysmorphic features (Fig. 1). The patient also presented lumbar hyperlordosis, small hands with brachydactyly (especially in the distal phalanges) and clinodactyly (Fig. 2), and small feet, with bilateral nail dysplasia. Neurological examination showed no focal signs.

His family was concerned by his sexual disinhibition, characterised by a strong desire for social relationships (despite certain difficulties adapting to his classmates) and obsessions with erotic content, associated with compulsive masturbation. He presented a high pain threshold, hypersensitivity to sound, and stereotypy of both hands at the level of the face (to release tension). These repetitive

Figure 2 Small hands with brachydactyly (especially in distal phalanxes) and clinodactyly.

behaviours were not incapacitating, and he was able to make eye contact and showed a good level of empathy. In the neuropsychological evaluation, the WISC-V showed a total intelligence quotient of 84, with a score of 74 in working memory, the most severely impaired item. We observed pronounced attention difficulties.

A bone age study revealed a delay of 2 years (—3 SD). Results of the cardiological examination, brain MRI, and EEG were normal. Further testing was performed, and whole-genome sequencing revealed heterozygous presence of a de novo frameshift mutation in exon 5 of the *PPM1D* gene (hg19; chr 17: 58734146; NM_003620.3; c.1206_1207del, p.Asn402Lysfs*31). The mutation, which was subsequently confirmed by Sanger sequencing, was not listed on any genetic database and had not previously been reported in the literature.

The most frequent physical characteristics of JDVS include hypotonia,[2] delayed bone age,[3] feeding difficulties and gastrointestinal problems (including vomiting and constipation),[1—4] and such dysmorphic features as the above-mentioned subtle facial abnormalities,[2,3] microcephalus, hyperlordosis,[4] small hands with brachyphalangia (detectable in 90% of cases), and hypoplastic nails.[1—4] The most frequent cognitive and behavioural difficulties are speech delay,[4] attention-deficit/hyperactivity disorder,[2] and anxiety with an obsessive-compulsive component,[2,3] together with hyper- or hyporeactivity to sensory stimuli (hypersensitivity to sound,[3] high pain threshold in 90% of cases)[2—4]; many of these features are present in our patient. Hypersexuality has previously been described in patients with intellectual disability and occasionally in patients with autistic spectrum disorders.[5] It is currently unclear whether this hyperactivity is part of a specific behavioural phenotype, which may have not been reported previously.

We report a case of JDVS with characteristic dysmorphic features and no intellectual disability, but presenting surprising hypersexual behaviour, secondary to a novel mutation. Although disability of various degrees is considered the standard in this syndrome,[1] the series by Jansen et al.[2] includes another case with JDVS and no intellectual disability, highlighting the need for more comprehensive genetic

studies in patients with complex neurodevelopmental disorders of unknown origin.

Funding

The authors have received no funding for this study.

References

1. Li Z, Du C, Zhang C, Zhang M, Ying Y, Liang Y, et al. Novel truncating variant of PPM1D penultimate exon in a Chinese patient with Jansen-de Vries syndrome. Mol Genet Genomic Med. 2020;8:e1120.
2. Jansen S, Geuer S, Pfundt R, Brough R, Ghongane P, Herkert JC, et al. De novo truncating mutations in the last and penultimate exons of PPM1D cause an intellectual disability syndrome. Am J Hum Genet. 2017;100:650—8.
3. Kuroda Y, Murakami H, Yokoi T, Kumaki T, Enomoto Y, Tsurusaki Y, et al. Two unrelated girls with intellectual disability associated with a truncating mutation in the PPM1D penultimate exon. Brain Dev. 2019;41:538—41.
4. Porrmann J, Rump A, Hackmann K, Di Donato N, Kahlert AK, Wagner J, et al. Novel truncating PPM1D mutation in a patient with intellectual disability. Eur J Med Genet. 2019;62:70—2.
5. Adams J, McClellan J, Douglass D, McCurry C, Storck M. Sexually inappropriate behaviors in seriously mentally ill children and adolescents. Child Abuse Negl. 1995;19:555—68.

D. Martín Fernández-Mayoralas[a,c,*], A.L. Fernández-Perrone[a,*], A. Jiménez De Domingo[a], A. Alba Menéndez[b], A. Fernández-Jaén[a,c]

[a] *Departamento de Neuropediatría, Hospital Universitario Quirónsalud, Madrid, Spain*
[b] *Genómica y Medicina, Instituto de Estudios Celulares y Moleculares, Lugo, Spain*
[c] *Facultad de Medicina, Universidad Europea de Madrid, Villaviciosa de Odón, Madrid, Spain*

* Corresponding author.
E-mail addresses: daniel.martinf@quironsalud.es (D. Martín Fernández-Mayoralas), afernandezj@quironsalud.es (A.L. Fernández-Perrone).

https://doi.org/10.1016/j.nrleng.2020.06.005
2173-5808/

Sweating as a presentation of focal epilepsy: clinical case report*

Sudoración como presentación de epilepsia focal: descripción de un caso clínico

Dear Editor:

Autonomic symptoms may be the first manifestation of an epileptic seizure.[1] The International League Against Epilepsy (ILAE) classification identifies autonomic seizures as focal non-motor seizures.[2] Autonomic symptoms may range from subclinical changes to potentially fatal haemodynamic instability. The anatomical substrate of autonomic seizures generally resides in the central autonomic network. This network comprises the insular cortex, anterior cingulate cortex, amygdalae, hypothalamus, periaqueductal grey matter, parabrachial nucleus, solitary nucleus, rostral ventrolateral medulla, and raphe nucleus.[3] We present the case of a patient with episodes of right hemibody hyperhidrosis secondary to insular dysplasia.

The patient was a 39-year-old right-handed man with no relevant medical history. From the age of 28, he had presented episodes of increased temperature and sweating on the right side of the face and body; episodes lasted 5-10 minutes and did not involve altered level of consciousness (Fig. 1 and Appendix B). These episodes presented 6-7 times per day. The baseline sleep-deprived electroencephalogram (EEG) showed no epileptiform alterations. A brain magnetic resonance imaging (MRI) study (3T scanner) revealed radiological signs suggestive of polymicrogyria of the left insular cortex (Fig. 2). Suspecting focal autonomic seizures, we started treatment with eslicarbazepine acetate at 800 mg/day; this reduced the number of seizures to the

Figure 1 Sweating in the patient's right lower limb during an epileptic seizure.

* Please cite this article as: López-Bravo A, Sanabria-Sanchinel AA, Marín-Gracia M, Viloria-Alebesque A. Sudoración como presentación de epilepsia focal: descripción de un caso clínico. Neurología. 2021;36:332—334.