Supplemental Material Online: Additional Text and References

Unusual Tremor Syndromes: Know in Order to Recognise

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Search criteria

The review comprised of a comprehensive online search to identify the available literature of case reports and articles for each tremor syndrome not listed in Table 1. We searched Google Scholar, PubMed and Ovid databases with no date restrictions using the keyword: 'tremor'; articles on the common tremors listed in Table 1 were excluded. An additional literature search was performed using the following keywords: 'FXTAS', 'Fragile X-associated tremor/ataxia syndrome', 'spinocerebellar ataxia', 'autosomal recessive cerebellar ataxia and tremor', 'myorhythmia', 'isolated tongue tremor', 'Wilson's disease and tremor', 'slow orthostatic tremor', 'peripheral trauma and tremor', 'tardive tremor', 'rabbit syndrome', 'hereditary chin tremor', 'familial geniospasm', 'essential chin myoclonus', 'bilateral high-frequency synchronous discharges', 'paroxysmal head tremor', 'limb-shaking transient ischaemic attack', 'bobble-head doll syndrome', 'spasmus nutans', and 'shuddering attack'. In addition, supplementation with the reference list from the articles was used as necessary.

Wilson's disease

The onset is typically in the second or third decade with a predominantly neurological presentation and it has been suggested that patients generally fall into several broad categories with considerable overlap: a dystonic syndrome, action tremor (also known as 'pseudosclerotic syndrome'), a parkinsonian syndrome, or an ataxic syndrome.[1 2] The most common presenting tremors reported vary but are usually in the upper limb and include postural, action and dystonic tremors with resting tremor occurring less frequently.[2-4] In the early stages, symptoms may be non-specific so clinicians must have a high index of suspicion in young adults presenting with a movement disorder because the prognosis is worse if the diagnosis is delayed.[5] A tremor predominant presentation suggests a more favourable prognosis and better response to treatment with chelation therapy, zinc, or both.[1 6]

In more advanced stages, the classic tremor observed is a postural proximal upper limb, large amplitude ‘wing-beating’ movement, which shares some similarities with Holmes’ tremor.[2]

1. Ala A, Walker AP, Ashkan K, Dooley JS, Schilsky ML. Wilson's disease. Lancet 2007;**369**(9559):397-408 doi: 10.1016/S0140-6736(07)60196-2[published Online First: Epub Date]|.
2. Bandmann O, Weiss KH, Kaler SG. Wilson's disease and other neurological copper disorders. The Lancet. Neurology 2015;**14**(1):103-13 doi: 10.1016/S1474-4422(14)70190-5[published Online First: Epub Date]|.
3. Machado A, Chien HF, Deguti MM, et al. Neurological manifestations in Wilson's disease: Report of 119 cases. Movement disorders : official journal of the Movement Disorder Society 2006;**21**(12):2192-6 doi: 10.1002/mds.21170[published Online First: Epub Date]|.
4. Lorincz MT. Recognition and treatment of neurologic Wilson's disease. Seminars in neurology 2012;**32**(5):538-43 doi: 10.1055/s-0033-1334476[published Online First: Epub Date]|.
5. Ferenci P. Pathophysiology and clinical features of Wilson disease. Metab Brain Dis 2004;**19**(3-4):229-39
6. Burke JF, Dayalu P, Nan B, Askari F, Brewer GJ, Lorincz MT. Prognostic significance of neurologic examination findings in Wilson disease. Parkinsonism & related disorders 2011;**17**(7):551-6 doi: 10.1016/j.parkreldis.2011.05.002[published Online First: Epub Date]|.

Tremor induced by peripheral lesions

There is some limited evidence that peripheral trauma can cause tremor. [1-3] It is often associated with complex regional pain syndrome, paraesthesia or hyperpathia in the affected region. Trauma-induced hand tremor is described following limb or cervical injury (whiplash), although it can spread to involve other body regions including the proximal limb or contralateral side. It is usually a highly variable tremor that is asymmetric, mainly postural-kinetic with a moderate frequency of 5-7 Hz. The tremor may clinically appear like essential, parkinsonian, dystonic, or other neurological tremors.[4] Other movement disorders, such as dystonia or myoclonic-like jerking, may occasionally be associated with the tremor.[1 3] A possible predisposing factor is present in up to 65% of these cases and include a family history of essential tremor or dystonia, previous use of neuroleptics or stimulants, HIV infection, seizure disorder, or mental retardation.[3] The tremor generally starts within a few weeks after trauma, worsening over the first year, then becoming less pronounced but rarely completely resolving.[5] Diagnostic criteria for peripherally-induced tremors were initially proposed by Jankovic *et al*. [6] to include: 1) the trauma has sufficient severity to result in local symptoms lasting at least two

weeks or requiring medical attention within the first two weeks; 2) the tremor is anatomically related to the site of injury; 3) onset of the tremor occurs within one year from the trauma.

The pathophysiology of these tremors is largely unclear and in most cases functional disorders have been the final diagnosis. We believe that before accepting the possible diagnosis of tremor induced by a peripheral lesion, every patient should undergo a detailed electrophysiological assessment of the tremor, which can easily support a diagnosis of functional tremor ("Laboratory-supported definite").[7] Researchers who favour an organic cause propose two predominant theories, either the generation of a peripheral rhythm generator or an enhancement of the normal physiological tremor. The majority of peripheral trauma tremors are refractory to medical therapy, such as propranolol, clonazepam, and carbamazepine, as is the case with functional tremors.[2] Injections of botulinum neurotoxin have shown benefit albeit transiently.[4]

1. Costa J, Henriques R, Barroso C, Ferreira J, Atalaia A, de Carvalho M. Upper limb tremor induced by peripheral nerve injury. Neurology 2006;**67**(10):1884-6 doi: 10.1212/01.wnl.0000244437.31413.2b[published Online First: Epub Date]|.
2. Hashimoto T, Sato H, Shindo M, Hayashi R, Ikeda S. Peripheral mechanisms in tremor after traumatic neck injury. Journal of neurology, neurosurgery, and psychiatry 2002;**73**(5):585-7
3. Jankovic J, Van der Linden C. Dystonia and tremor induced by peripheral trauma: predisposing factors. Journal of neurology, neurosurgery, and psychiatry 1988;**51**(12):1512-9
4. Jankovic J. Peripherally induced movement disorders. Neurologic clinics 2009;**27**(3):821-32, vii doi: 10.1016/j.ncl.2009.04.005[published Online First: Epub Date]|.
5. Ellis SJ. Tremor and other movement disorders after whiplash type injuries. Journal of neurology, neurosurgery, and psychiatry 1997;**63**(1):110-2
6. Jankovic J. Post-traumatic movement disorders: central and peripheral mechanisms. Neurology 1994;**44**(11):2006-14
7. Gupta A, Lang AE. Psychogenic movement disorders. Current opinion in neurology 2009;**22**(4):430-6 doi: 10.1097/WCO.0b013e32832dc169[published Online First: Epub Date]|.

References listed in the tables

Table 2

Boddu, N. J., S. Badireddi, K. D. Straub, J. Schwankhaus and R. Jagana (2013). "Acute thyrotoxic bulbar myopathy with encephalopathic behaviour: an uncommon complication of hyperthyroidism." Case Rep Endocrinol **2013**: 369807.

Dammers, S., T. Zeit, M. Leonhardt, V. Schar and M. W. Agelink (1995). "[The neuroleptic malignant syndrome]." Dtsch Med Wochenschr **120**(50): 1739-1742.

Datapharm (2015). electronic Medicines Compendium. Summaries of Product Characteristics. United Kingdom, Medicines and Healthcare Products Regulatory Agency.

Table 3

Adler, C. H. and S. L. Galetta (1990). "Oculo-facial-skeletal myorhythmia in Whipple disease: treatment with ceftriaxone." Ann Intern Med **112**(6): 467-469.

Baizabal-Carvallo, J. F., F. Cardoso and J. Jankovic (2015). "Myorhythmia: Phenomenology, etiology, and treatment." Mov Disord **30**(2): 171-179.

Baizabal-Carvallo, J. F., A. Stocco, E. Muscal and J. Jankovic (2013). "The spectrum of movement disorders in children with anti-NMDA receptor encephalitis." Mov Disord **28**(4): 543-547.

Calandra-Buonaura, G., F. Provini, P. Guaraldi, F. Pizza, A. Cecere, G. Barletta, E. Lugaresi, G. Pierangeli and P. Cortelli (2013). "Oculomasticatory myorhythmia and agrypnia excitata guide the diagnosis of Whipple disease." Sleep Med **14**(12): 1428-1430.

de Andrade, D. C., R. C. Nogueira, L. T. Lucato, P. E. Marchiori, L. R. Machado, M. J. Teixeira and M. Scaff (2007). "Isolated CNS Whipple disease with a variant of oculofacial-skeletal myorhythmia (OFSM)." Neurology **69**(11): E12.

Dietrichs, E., M. S. Heier and P. H. Nakstad (2000). "Jaw-opening dystonia presumably caused by a pontine lesion." Mov Disord **15**(5): 1026-1028.

Dimberg, E. L., S. E. Crowe, J. M. Trugman, R. H. Swerdlow, M. B. Lopes, T. D. Bourne and T. M. Burns (2007). "Fatal encephalitis in a patient with refractory celiac disease presenting with myorhythmia and carpal spasm." Mov Disord **22**(3): 407-411.

Dul, M. and S. Forman (1995). "Oculomasticatory myorhythmia." Clinical Eye and Vision Care **7**: 107-110.

Erickson, J. C., H. Carrasco, J. B. Grimes, B. Jabbari and K. R. Cannard (2002). "Palatal tremor and myorhythmia in Hashimoto's encephalopathy." Neurology **58**(3): 504-505.

Evidente, V. G., J. Advincula, R. Esteban, P. Pasco, J. A. Alfon, F. F. Natividad, J. Cuanang, A. S. Luis, K. Gwinn-Hardy, J. Hardy, D. Hernandez and A. Singleton (2002). "Phenomenology of "Lubag" or X-linked dystonia-parkinsonism." Mov Disord **17**(6): 1271-1277.

Grotta, J. C., L. C. Pettigrew, W. A. Schmidt, G. Friedman and S. Snatic (1987). "Oculomasticatory myorhythmia." Ann Neurol **22**(3): 395-396.

Hausser-Hauw, C., E. Roullet, R. Robert and R. Marteau (1988). "Oculo-facio-skeletal myorhythmia as a cerebral complication of systemic Whipple's disease." Mov Disord **3**(2): 179-184.

Herz, E. (1931). Die amyostatischen unruheerscheinungen; klinisch-kinematographische analyse ihrer kennzeichen und beglieterscheinungen. Leipzig,, J. A. Barth.

Hirono, N., M. Kameyama, Y. Kobayashi, F. Udaka, T. Mezaki, K. Abe and N. Nishitani (1990). "MR demonstration of a unilateral olivary hypertrophy caused by pontine tegmental hematoma." Neuroradiology **32**(4): 340-342.

Kleinig, T. J., P. D. Thompson, W. Matar, A. Duggins, T. E. Kimber, J. G. Morris, C. S. Kneebone and P. C. Blumbergs (2008). "The distinctive movement disorder of ovarian teratoma-associated encephalitis." Mov Disord **23**(9): 1256-1261.

Lee, M. S., Y. D. Kim, W. C. Kim and C. H. Lyoo (1999). "Slow rhythmic dyskinesia of the shoulder: one idopathic and two symptomatic cases." Mov Disord **14**(6): 1049-1051.

Lera, G., O. Scipioni, S. Garcia, A. Cammarota, G. Fischbein and O. Gershanik (2000). "A combined pattern of movement disorders resulting from posterolateral thalamic lesions of a vascular nature: a syndrome with clinico-radiologic correlation." Mov Disord **15**(1): 120-126.
Li, J. Y. and C. H. Lee (2009). "Episodic tongue hyperkinesias and alternating limb movements associated with basilar artery ischemia." Mov Disord **24**(8): 1249-1251.
Louis, E. D., T. Lynch, P. Kaufmann, S. Fahn and J. Odel (1996). "Diagnostic guidelines in central nervous system Whipple's disease." Ann Neurol **40**(4): 561-568.
Masucci, E. F., J. F. Kurtzke and N. Saini (1984). "Myorhythmia: a widespread movement disorder. Clinicopathological correlations." Brain **107 (Pt 1)**: 53-79.
Mohamed, W., E. Neil, W. J. Kupsky, C. Juhasz, S. Mittal and S. Santhakumar (2011). "Isolated intracranial Whipple's disease--report of a rare case and review of the literature." J Neurol Sci **308**(1-2): 1-8.
Park, K. I., J. M. Chung, S. H. Lee and H. K. Lee (2010). "Myorhythmia associated with listerial rhombencephalitis." Mov Disord **25**(7): 950-952.
Postert, T., G. Amoiridis, D. Pohlau, V. Hoffmann and H. Przuntek (1997). "Episodic undulating hyperkinesias of the tongue associated with brainstem ischemia." Mov Disord **12**(4): 619-621.
Rajput, A. H. and J. D. McHattie (1997). "Ophthalmoplegia and leg myorhythmia in Whipple's disease: report of a case." Mov Disord **12**(1): 111-114.
Revilla, F. J., R. de la Cruz, N. Khardori and A. J. Espay (2008). "Teaching NeuroImage: Oculomasticatory myorhythmia: pathognomonic phenomenology of Whipple disease." Neurology **70**(6): e25.
Schwartz, M. A., J. B. Selhorst, A. L. Ochs, R. W. Beck, W. W. Campbell, J. K. Harris, B. Waters and M. E. Velasco (1986). "Oculomasticatory myorhythmia: a unique movement disorder occurring in Whipple's disease." Ann Neurol **20**(6): 677-683.
Simpson, D. A., R. Wishnow, R. B. Gargulinski and A. M. Pawlak (1995). "Oculofacial-skeletal myorhythmia in central nervous system Whipple's disease: additional case and review of the literature." Mov Disord **10**(2): 195-200.
Tan, E. K., L. L. Chan and Y. L. Lo (2003). ""Myorhythmia" slow facial tremor from chronic interferon alpha-2a usage." Neurology **61**(9): 1302-1303.
Tan, E. K., L. L. Chan and Y. L. Lo (2007). "Isolated facial myorhythmia." J Neurol Sci **252**(1): 36-38.
Tison, F., C. Louvet-Giendaj, P. Henry, A. Lagueny and E. Gaujard (1992). "Permanent bruxism as a manifestation of the oculo-facial syndrome related to systemic Whipple's disease." Movement disorders : official journal of the Movement Disorder Society **7**(1): 82-85.
Van Bogaert, L., R. Lafon, P. Pages and R. Labauge (1963). "Sur une encephalite subaigue non classable, principalement caracterisee par des myorythmies oculo-facio-cervicales." Rev Neurol **109**: 443-453.
van Meerbeeck, P. C., G. Fenelon, R. Ahdab and J. P. Lefaucheur (2010). "Electrophysiological assessment of a case of limb myorhythmia." Clin Neurophysiol **121**(12): 2180-2183.
Vancaester, E., D. Hemelsoet, M. De Letter and P. Santens (2013). "Masticatory myorhythmia following pontine hemorrhage." Acta Neurol Belg **113**(3): 327-329.
Wiener, V., J. Honnorat, M. Pandolfo, A. Kentos and M. U. Manto (2003). "Myorhythmia associated with Hodgkin's lymphoma." J Neurol **250**(11): 1382-1384.

Table 4

Araya, P., C. Sacks, P. Munoz, J. P. Gigoux, L. Garcia, G. Matamala and J. Idiaquez (2009). "[Primary vasculitis of the central nervous system: report of one case]." Rev Med Chil **137**(6): 807-810.

Aydin, O. F., C. Uner, N. Senbil, K. Bek, O. Erdogan and Y. K. Gurer (2003). "Central pontine and extrapontine myelinolysis owing to disequilibrium syndrome." J Child Neurol **18**(4): 292-296.

Badura-Stronka, M., A. Jamsheer, A. Materna-Kiryluk, A. Sowinska, K. Kiryluk, B. Budny and A. Latos-Bielenska (2010). "A novel nonsense mutation in CUL4B gene in three brothers with X-linked mental retardation syndrome." Clin Genet **77**(2): 141-144.

Bardsley, M. Z., K. Kowal, C. Levy, A. Gosek, N. Ayari, N. Tartaglia, N. Lahlou, B. Winder, S. Grimes and J. L. Ross (2013). "47,XYY syndrome: clinical phenotype and timing of ascertainment." J Pediatr **163**(4): 1085-1094.

Carecchio, M., S. A. Schneider, H. Chan, R. Lachmann, P. J. Lee, E. Murphy and K. P. Bhatia (2011). "Movement disorders in adult surviving patients with maple syrup urine disease." Mov Disord **26**(7): 1324-1328.

Caridi, G., M. Dagnino, A. Rossi, E. M. Valente, E. Bertini, E. Fazzi, F. Emma, L. Murer, E. Verrina and G. M. Ghiggeri (2006). "Nephronophthisis type 1 deletion syndrome with neurological symptoms: prevalence and significance of the association." Kidney Int **70**(7): 1342-1347.

Chi, C. S., H. F. Lee and C. R. Tsai (2012). "Tyrosine hydroxylase deficiency in Taiwanese infants." Pediatr Neurol **46**(2): 77-82.

Curcio, S. A., T. Kawarai, A. D. Paterson, R. G. Maletta, G. Puccio, M. Perri, M. Di Natale, S. Palermo, J. F. Foncin, P. H. Hyslop and A. C. Bruni (2002). "A large Calabrian kindred segregating frontotemporal dementia." J Neurol **249**(7): 911-922.

Da Silva, A. M., N. Rocha, M. Pinto, V. Alves, F. Farinha, A. P. Correia, T. Coelho and M. Magalhaes (2005). "Tremor as the first neurological manifestation of Sneddon's syndrome." Mov Disord **20**(2): 248-251.

Demir, E., E. Saka and S. Aysun (2001). "A case of Sandifer's syndrome with hand tremor." Turk J Pediatr **43**(4): 348-350.

Diniz, M. A., L. Cunha, F. Goncalves and C. Oliveira (1986). "[2 cases of stiff-man syndrome with tremor]." Rev Neurol (Paris) **142**(12): 918-920.

Duckett, S., J. Cracco, L. Graziani, T. G. Scott, D. Solomon and R. Kradin (1975). "Inclusions in the sural nerve in metachromatic leukodystrophy." Acta Neurol Latinoam **21**(1-4): 184-193.

Duniewicz, M. (1976). "[Clinical picture of Central European tick-borne encephalitis (author's transl)]." MMW Munch Med Wochenschr **118**(49): 1609-1612.

Dziadkiewicz, A., M. Bialecka, P. Janik and J. Slawek (2013). "Hemiparkinsonism-hemiatrophy syndrome - report on two cases and review of the literature." Neurol Neurochir Pol **47**(4): 387-392.

El Hechmi, S., S. Bouhlel, W. Melki and Z. El Hechmi (2014). "[Psychotic disorder induced by Fahr's syndrome: a case report]." Encephale **40**(3): 271-275.

Finsterer, J. (2009). "Bulbar and spinal muscular atrophy (Kennedy's disease): a review." Eur J Neurol **16**(5): 556-561.

Finsterer, J., W. Loscher, J. Wanschitz, M. Baumann, S. Quasthoff and W. Grisold (2013). "Hirayama disease in Austria." Joint Bone Spine **80**(5): 503-507.

Genton, P., R. Velizarova and C. Dravet (2011). "Dravet syndrome: the long-term outcome." Epilepsia **52 Suppl 2**: 44-49.
Grunseich, C., T. M. Fishbein, F. Berkowitz and E. A. Shamim (2010). "Tremor and deep brain nuclei hyperintensities in Kabuki syndrome." Pediatr Neurol **43**(2): 148-150.
Guler, S., U. Utku, A. Tezel and E. Unlu (2013). "Reversible hepatocerebral degeneration-like syndrome due to portovenous shunts." Ideggyogy Sz **66**(11-12): 424-426.
Hefter, H., V. Homberg, H. W. Lange and H. J. Freund (1987). "Impairment of rapid movement in Huntington's disease." Brain **110 (Pt 3)**: 585-612.
Hunter, M. F., H. Peters, R. Salemi, D. Thorburn and M. T. Mackay (2011). "Alpers syndrome with mutations in POLG: clinical and investigative features." Pediatr Neurol **45**(5): 311-318.
Iwasaki, Y., M. Kizawa, N. Hori, T. Kitamoto and G. Sobue (2009). "A case of Gerstmann-Straussler-Scheinker syndrome with the P105L prion protein gene mutation presenting with ataxia and extrapyramidal signs without spastic paraparesis." Clin Neurol Neurosurg **111**(7): 606-609.
Jain, K. K. (1994). "High-pressure neurological syndrome (HPNS)." Acta Neurol Scand **90**(1): 45-50.
Jayawant, S., J. Neale, N. Stoodley and S. Wallace (2001). "Gliomatosis cerebri in a 10-year-old girl masquerading as diffuse encephalomyelitis and spinal cord tumour." Dev Med Child Neurol **43**(2): 124-126.
Kalviainen, R., J. Khyuppenen, P. Koskenkorva, K. Eriksson, R. Vanninen and E. Mervaala (2008). "Clinical picture of EPM1-Unverricht-Lundborg disease." Epilepsia **49**(4): 549-556.
Kaufman, L. D. (1994). "Chronicity of the eosinophilia-myalgia syndrome. A reassessment after three years." Arthritis Rheum **37**(1): 84-87.
Kim, H. T., M. J. Edwards, J. Tyson, N. P. Quinn, M. Bitner-Glindzicz and K. P. Bhatia (2007). "Blepharospasm and limb dystonia caused by Mohr-Tranebjaerg syndrome with a novel splice-site mutation in the deafness/dystonia peptide gene." Mov Disord **22**(9): 1328-1331.
Kim, S. J., J. S. Yoon, H. J. Baek, S. I. Suh, S. Y. Bae, H. J. Cho and C. S. Ki (2008). "Identification of proteolipid protein 1 gene duplication by multiplex ligation-dependent probe amplification: first report of genetically confirmed family of Pelizaeus-Merzbacher disease in Korea." J Korean Med Sci **23**(2): 328-331.
Klein, A., E. Boltshauser, J. Jen and R. W. Baloh (2004). "Episodic ataxia type 1 with distal weakness: a novel manifestation of a potassium channelopathy." Neuropediatrics **35**(2): 147-149.
Kolbaske, S., A. Grossmann, R. Benecke and M. Wittstock (2009). "Progressive gait ataxia and intention tremor in a case of Bing-Neel syndrome." J Neurol **256**(8): 1366-1368.
Kompoliti, K., C. G. Goetz, D. C. Gajdusek and E. Cubo (1999). "Movement disorders in Kuru." Mov Disord **14**(5): 800-804.
Koussa, S., A. Taher and R. Sayegh (2003). "[Postural and kinetic tremor associated with vitamin B12 deficiency]." Rev Neurol (Paris) **159**(12): 1173-1174.
Kovacs, N., E. Pal, I. Balas, J. Janszky, F. Nagy and H. Merkli (2006). "Neurosurgical treatment of tremor in mitochondrial encephalopathy." Mov Disord **21**(12): 2227-2230.
Kresojevic, N. D., I. N. Petrovic, N. T. Dragaevic-Miskovic and V. S. Kostic (2013). "[Superficial siderosis: case report and literature review]." Srp Arh Celok Lek **141**(3-4): 219-222.
Kubota, A., A. Hida, Y. Ichikawa, Y. Momose, J. Goto, Y. Igeta, H. Hashida, K. Yoshida, S. Ikeda, I. Kanazawa and S. Tsuji (2009). "A novel ferritin light chain gene mutation in a Japanese

family with neuroferritinopathy: description of clinical features and implications for genotype-phenotype correlations." Mov Disord **24**(3): 441-445.
Lee, H. F., H. J. Lee, C. S. Chi, C. R. Tsai, T. K. Chang and C. J. Wang (2007). "The neurological evolution of Pearson syndrome: case report and literature review." Eur J Paediatr Neurol **11**(4): 208-214.
Lin, J. J. and D. C. Chang (1997). "Tremor caused by ipsilateral chronic subdural hematoma. Case illustration." J Neurosurg **87**(3): 474.
Liu, H., L. Qiao and Z. He (2012). "Wernekink commissure syndrome: a rare midbrain syndrome." Neurol Sci **33**(6): 1419-1421.
Lote, H., G. N. Fuller and P. G. Bain (2013). "48, XXYY syndrome associated tremor." Pract Neurol **13**(4): 249-253.
Ma, X., Y. Zhang, Y. Yang, X. Liu, Z. Yang, X. Bao, J. Qin and X. Wu (2011). "Epilepsy in children with methylmalonic acidemia: electroclinical features and prognosis." Brain Dev **33**(9): 790-795.
Machaczka, M., R. Hast, I. Dahlman, R. Lerner, M. Klimkowska, M. Engvall and H. Hagglund (2012). "Substrate reduction therapy with miglustat for type 1 Gaucher disease: a retrospective analysis from a single institution." Ups J Med Sci **117**(1): 28-34.
Mancuso, M., D. Orsucci, C. Angelini, E. Bertini, V. Carelli, G. P. Comi, C. Minetti, M. Moggio, T. Mongini, S. Servidei, P. Tonin, A. Toscano, G. Uziel, C. Bruno, E. Caldarazzo Ienco, M. Filosto, C. Lamperti, D. Martinelli, I. Moroni, O. Musumeci, E. Pegoraro, D. Ronchi, F. M. Santorelli, D. Sauchelli, M. Scarpelli, M. Sciacco, M. Spinazzi, M. L. Valentino, L. Vercelli, M. Zeviani and G. Siciliano (2013). "Phenotypic heterogeneity of the 8344A>G mtDNA "MERRF" mutation." Neurology **80**(22): 2049-2054.
Mancuso, M., D. Orsucci, A. Bacci, E. Caldarazzo Ienco and G. Siciliano (2011). "Anti-Ri-associated paraneoplastic cerebellar degeneration. Report of a case and revision of the literature." Arch Ital Biol **149**(3): 318-322.
Martino, D., N. K. Chew, P. Mir, M. J. Edwards, N. P. Quinn and K. P. Bhatia (2006). "Atypical movement disorders in antiphospholipid syndrome." Mov Disord **21**(7): 944-949.
Mayston, M. J., L. M. Harrison, J. A. Stephens and S. F. Farmer (2001). "Physiological tremor in human subjects with X-linked Kallmann's syndrome and mirror movements." J Physiol **530**(Pt 3): 551-563.
Mimaki, T., N. Itoh, J. Abe, T. Tagawa, K. Sato, H. Yabuuchi and H. Takebe (1986). "Neurological manifestations in xeroderma pigmentosum." Ann Neurol **20**(1): 70-75.
Moon, J. S., G. Il Kim, Y. H. Koo, H. S. Kim, W. C. Kim, O. J. Kim and S. H. Oh (2009). "Kinetic tremor and cerebellar ataxia as initial manifestations of Kikuchi-Fujimoto's disease." J Neurol Sci **277**(1-2): 181-183.
Moser, M. M. (2011). "Treatment for a 14-year-old girl with Lyme disease using therapeutic exercise and gait training." Phys Ther **91**(9): 1412-1423.
Nakamura, T., N. Morimoto, F. Goto, Y. Shioda, H. Hoshino, M. Kubota and H. Taiji (2012). "Langerhans cell histiocytosis with disequilibrium." Auris Nasus Larynx **39**(6): 627-630.
Nogues, M. A., R. C. Leiguarda, A. D. Rivero, F. Salvat and F. Manes (1999). "Involuntary movements and abnormal spontaneous EMG activity in syringomyelia and syringobulbia." Neurology **52**(4): 823-834.
Ohizumi, H., Y. Okuma, J. Fukae, K. Fujishima, K. Goto and Y. Mizuno (2002). "Head tremor in dentatorubral-pallidoluysian atrophy." Acta Neurol Scand **106**(5): 319-321.

Okimura, Y., H. Tanno, H. Karasudani, S. Suda, J. Ono and K. Isobe (1991). "[A case of hypertrophic cranial pachymeningitis]." No Shinkei Geka **19**(3): 259-262.
Okuyucu, E. E., D. D. Balci, A. Balci, T. Duman and E. Akcin (2010). "Neurologic soft signs in Behcet disease." Neurologist **16**(6): 371-374.
Onal, C., C. Yakinci, F. Erten, R. Erguvan, S. Cayli, A. Gul and E. Aydin (2001). "Supratentorial hydatid cyst with cerebellar signs: a rare case of diaschisis." Childs Nerv Syst **17**(12): 746-749.
Perretti, A., G. Crispino, L. Marcantonio, S. Lenta, M. Caropreso, F. Manganelli, S. Scianguetta, R. Iorio, A. Iolascon and P. Vajro (2007). "Clinical utility of electrophysiological evaluation in Crigler-Najjar syndrome." Neuropediatrics **38**(4): 173-178.
Puccioni-Sohler, M., R. Papais-Alvarenga, P. M. de Souza, S. C. de Franca, R. R. Goncalves and S. Jacobson (2005). "Parkinsonism in the course of HTLV-I-associated myelopathy." Mov Disord **20**(5): 613-615.
Shah, P. A. and F. A. Kuchhai (2009). "Galactosemia with chorea--an unusual presentation." Indian J Pediatr **76**(1): 97-98.
Soejima, N., Y. Ohyagi, H. Kikuchi, H. Murai, H. Shigeto and J. Kira (2006). "[An adult case of probable Bassen-Kornzweig syndrome, presenting resting tremor]." Rinsho Shinkeigaku **46**(10): 702-706.
Szleper, M., J. Zaremba and B. Czartoryska (1991). "[A case of mannosidosis type II]." Neurol Neurochir Pol **25**(6): 797-801.
Thibert, R. L., A. M. Larson, D. T. Hsieh, A. R. Raby and E. A. Thiele (2013). "Neurologic manifestations of Angelman syndrome." Pediatr Neurol **48**(4): 271-279.
Ticho, B. H., C. Hilchie-Schmidt, R. T. Egel, E. I. Traboulsi, R. J. Howarth and D. Robinson (2006). "Ocular findings in Gillespie-like syndrome: association with a new PAX6 mutation." Ophthalmic Genet **27**(4): 145-149.
Turgut, N., E. Unlu, M. K. Hamamcioglu, B. Guldiken and S. Albayram (2010). "Postural tremor as a manifestation of spontaneous intracranial hypotension." J Clin Neurosci **17**(2): 255-257.
Varlibas, F., O. Cobanoglu, B. Ergin and H. Tireli (2009). "Different phenotypy in three siblings with homocystinuria." Neurologist **15**(3): 144-146.
Veldman, P. H., H. M. Reynen, I. E. Arntz and R. J. Goris (1993). "Signs and symptoms of reflex sympathetic dystrophy: prospective study of 829 patients." Lancet **342**(8878): 1012-1016.
Wada, Y., Y. Kita, T. Yamamoto, K. Sawai and S. Ueda (2000). "[Homocystinuria with generalized chorea and other movement disorders: a case report]." No To Shinkei **52**(7): 629-631.
Wake, Y., A. Kanzaki and T. Shirabe (2000). "[Roussy-Levy syndrome with a duplication on peripheral myelin protein gene (PMP22)]." Rinsho Shinkeigaku **40**(7): 750-752.
Yamaguchi, S., K. Johkura, H. Nagatomo, O. Hasegawa and Y. Kuroiwa (1995). "[A case of Lissauer's general paresis with left hemisphere dominant brain atrophy and leuko-araiosis in the deep white matter on MRI]." Rinsho Shinkeigaku **35**(8): 904-907.
Yasui-Furukori, N., Y. Sato, H. Kato and S. Kaneko (2012). "Paroxetine-associated hypereosinophilia may clinically resemble a panic attack." Clin Neuropharmacol **35**(1): 47-48.
Yavnai, N. and D. Aizenbud (2013). "[Orthodontic silicone positioner for the treatment of oral symptoms in Amyotrophic Lateral Sclerosis (ALS) patients]." Refuat Hapeh Vehashinayim **30**(3): 22-29, 61.
Yokoi, S., K. Suzuki, N. Amano and S. Yagishita (1988). "[Lipid chemical study of an autopsy case of Nasu-Hakola disease]." No To Shinkei **40**(2): 141-147.

Zeng, H., F. Wen, Y. Gan and W. Huang (2012). "MRI and associated clinical characteristics of EV71-induced brainstem encephalitis in children with hand-foot-mouth disease." Neuroradiology **54**(6): 623-630.

Table 5

Bettoni, L., E. Bortone, M. Chiusi, R. Tortorella, C. Zanferrari and D. Mancia (1999). "Isolated episodic lingual myoclonus." Eur Neurol **41**(2): 118-119.

Fahn, S. and N. Singh (1981). "An oscillating form of essential myoclonus." Neurology **3**(4, pt 2): 80.

Fung, V. S., A. Duggins, J. G. Morris and I. T. Lorentz (2000). "Progressive myoclonic ataxia associated with celiac disease presenting as unilateral cortical tremor and dystonia." Mov Disord **15**(4): 732-734.

Gasca-Salas, C., J. Arcocha, J. Artieda and P. Pastor (2013). "Orthostatic myoclonus: an underrecognized cause of unsteadiness?" Parkinsonism Relat Disord **19**(11): 1013-1017.

Halliday, A. M. (1967). "The electrophysiological study of myoclonus in man." Brain **90**(2): 241-284.

Leu-Semenescu, S., E. Roze, M. Vidailhet, A. P. Legrand, J. M. Trocello, V. Cochen, S. Sangla and E. Apartis (2007). "Myoclonus or tremor in orthostatism: an under-recognized cause of unsteadiness in Parkinson's disease." Mov Disord **22**(14): 2063-2069.

Stogmann, E., E. Reinthaler, S. Eltawil, M. A. El Etribi, M. Hemeda, N. El Nahhas, A. M. Gaber, A. Fouad, S. Edris, A. Benet-Pages, S. H. Eck, E. Pataraia, D. Mei, A. Brice, S. Lesage, R. Guerrini, F. Zimprich, T. M. Strom and A. Zimprich (2013). "Autosomal recessive cortical myoclonic tremor and epilepsy: association with a mutation in the potassium channel associated gene CNTN2." Brain **136**(Pt 4): 1155-1160.

Wang, H. C., W. C. Hsu and P. Brown (1999). "Cortical tremor secondary to a frontal cortical lesion." Mov Disord **14**(2): 370-374.