ATYPICAL PRESENTATION OF AN IDIOPATHIC SLEEP RELATED RHYTHMIC MOVEMENT DISORDER

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Background

Sleep Related Rhythmic Movement Disorders (RMDs) are characterized by ripetitive, stereotyped and rhythmic motor behaviors that involve large muscle groups (especially neck and trunk muscles) and that are not better explained by another movement disorder or epilepsy. Episodes of RMDs generally occur near sleep onset, but they can be observed at any time during nocturnal sleep, including REM sleep. The pathophysiological mechanisms of RMDs are not fully understood. RMD are typically seen in infants and children, seldom in adults, in which case often associated with learning difficulty. The patient with RMDs usually presents one of these movements: head rolling, head banging, body rocking, body rolling and, less commonly, leg banging or leg rolling [1]. According to the International Classification of Sleep Disorders (third Edition) of American Academy of Sleep Medicine, RMDs should be considered a disorder only if they significantly interfere with normal sleep, resulting in significant impairment in daytime function, or in self-inflicted bodily injury [1].

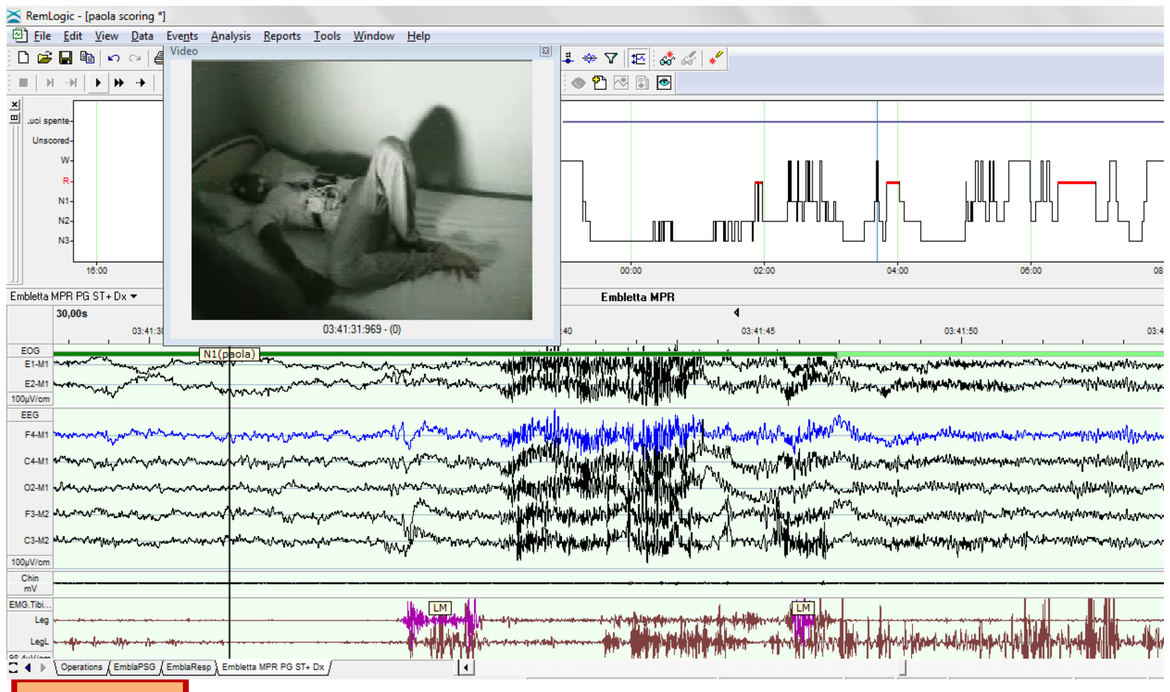

Figure 1

Case Report

A 22 year old man showed sleep-related stereotyped movements since he was a child. In medical history there were no other diseases. Every night, while he was sleeping (usually near sleep onset or at 4.00 a.m.), he put his arms behind his back, then he presented body rolling, head rolling and legs rolling; these episodes lasted five minutes. The patient didn't remember what happened during the night and the day after he was very tired and exhibited an impairment of his daytime function. EEG was normal; brain MRI showed a little cavernosus angioma in frontal left lobe; neuropsychological evaluation was normal; blood examinations were normal; nocturnal video-PSG confirmed RMD. The patient was treated with Clonazepam at a starting dose of 0.5 mg at bedtime, later increased to 0.8 mg without any improvement. The patient refused a further increase in dosage.

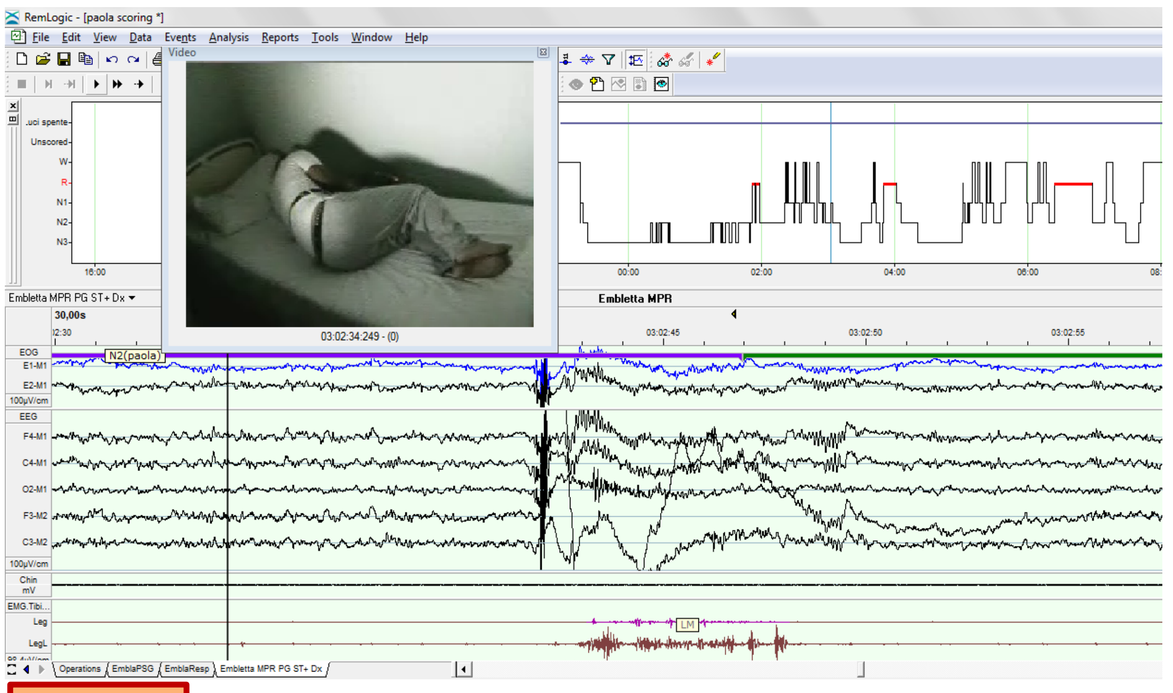

Figure 2

Discussion

According to literature, RMDs persist rarely in adults; moreover, generally sporadic single episodes of RM occur at night [2] and the coexistence of different types of Sleep Related Rhythmic Movements has been described in the same patient only in few cases [3]. Our patient presented a lot of different movements: head rolling, body rolling, leg banging and leg rolling. In previous studies RMDs typically started near sleep onset or when patient wake up, however they could exist in other sleep stages, above all in adults [4]; furthermore these episodes could appear during wake, throughout relaxed activities. In this case RMs appeared in different sleep stages (N1, N2, N3) [figure 1-2-3] and during wake. Video-PSG studies showed RMDs in 46% of case during NREM stages (N1 and N2); 30% of cases in both NREM and REM stages; 24% of cases during REM stages. We haven't observed RMs in REM stage [5]. In literature a high frequence of arousals in association with RMs and a close temporal relationship between K complex and RMs onset were described [6]. The hypnogram of our patient confirmed the association of arousals with RMs, whereas we didn't find a temporal correlation between K complex and RMs onset. In conclusion, the different clinical and neurophysiological patterns of RMDs would require further videopolysomnographic investigations in order of obtaining a better systematization of this sleep disorder.

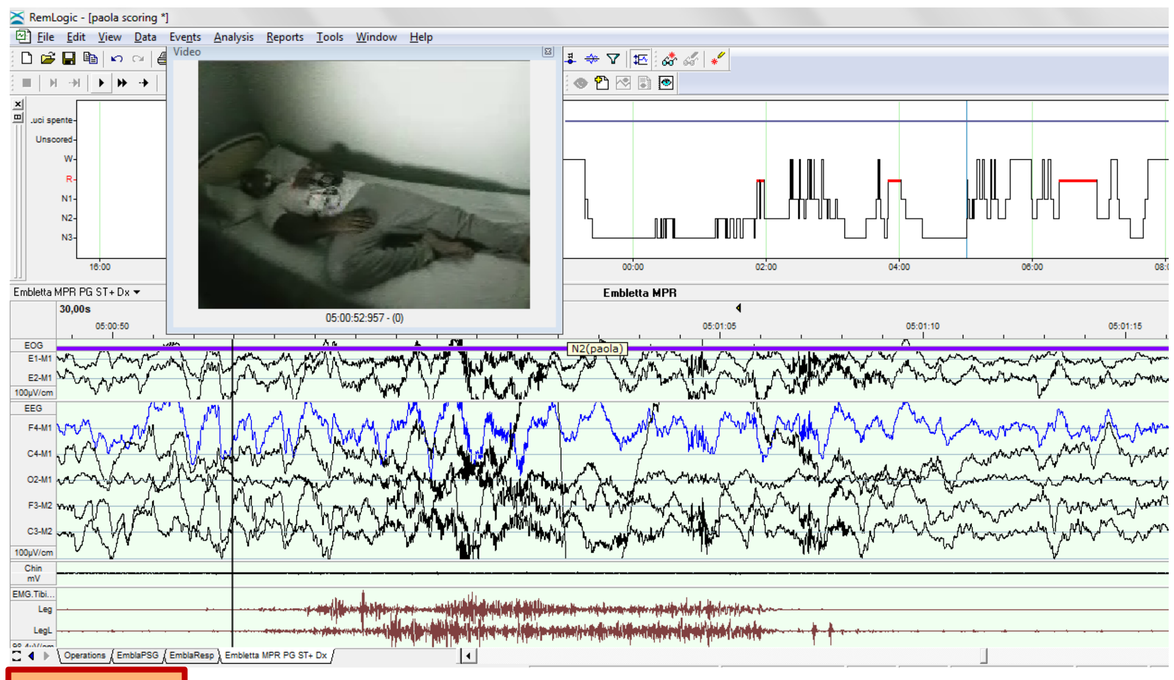

Figure 3

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