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Amyloid Angiopathy and Golf: Two Opposite but Close Worlds

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Abstract : The patient is a 89 years old male (180cm/85kg) retired notary former golfer with no past medical history. He describes a progressive ideomotor slowdown for 14 months. The disorder is characterized by short-term memory deficits and, for some months, also by unstable walking with a broad base with skidding and risk of falling at directional changes and urinary urgency. There were also episodes of aggression towards his wife and staff. At the time, the patient takes no prescribed medications. He has difficulty eating, dressing, and some problems with personal hygiene. In the initial visit, the patient was alert, cooperating, and performed simple tasks; however, he has a hearing impairment, slowed spontaneous speech, and amnestic deficit to the short story. Ideomotor apraxia is not present. He scored 20 points in the MMSE. From a motor function, he has deficits using Medical Research Council (MRC) 3-/5 in bilateral lower limbs and requires maximum assistance from sit to stand with existing premature fatigue. He's unable to walk for about 1 month. Tremors and hypertonia are absent. BERG was unable to be administered, and BARTHEL was obtained 45/100. An Amyloid Angiopathy is suspected and then confirmed at the neurological examination. Therehabilitation objectives were the recovery of mobility and reinforcement of the UE/LE, especially legs, for recovery of standing and walking. The cognitive aspect was also an essential factor for the patient's recovery. The literature doesn't demonstrate any particular studies regarding motor and cognitive rehabilitation on this pathology. Failing to manage his attention on exercise and tending to be disinterested and falling asleep constantly, we used golf-specific gestures to stimulate his mind to work and get results because the patient has memory recall of golf related movement. We worked for 4 months with a frequency of 3 sessions per week. Every session lasted for 45 minutes. After 4 months of work, the patient walked independently with the use of a stick for about 120 meters without stopping. MRC 4/5 AI bilaterally andpostural steps performed independently with supervision. BERG 36/56. BARTHEL 65/100. 6 Minutes Walking Test (6MWT), at the beginning, it wasn't measurable, now, he performs 151,5m with Numeric Rating Scale 4 at the beginning and 7 at the end. Cognitively, he no longer has episodes of aggression, although the short-term memory and concentration deficit remains. Amyloid Angiopathy is a mix of motor and cognitive disorder. It is worth the thought that cerebral amyloid angiopathy manifests with functional deficits due to strokes and bleedings and, as such, has an important rehabilitation indication, as classical stroke is not associated with amyloidosis. Exploring the motor patterns learned at a young age and remained in the implicit and explicit memory of the patient allowed us to set up effective work and to obtain significant results in the short-middle term. Surely many studies will still be done regarding this pathology and its rehabilitation, but the importance of the cognitive sphere applied to the motor sphere could represent an important starting point.

Keywords : amyloid angiopathy, cognitive rehabilitation, golf, motor disorder
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