Corticobasal degeneration with alien hand and complex regional pain syndromes.

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Introduction. Corticobasal degeneration syndrome (CBS) is a progressive neurodegenerative disorder characterized by asymmetric motor signs such as rigidity, bradykinesia, dystonia, apraxia and alien limb phenomenon. In subacute stage of Complex Regional Pain Syndrome (CRPS) type I motor changes as dystonia, bradykinesia myoclonus and tremor may also develop.

Purpose. To present a case of a woman with CBS complicated by CRPS.

Method; Case study. We have been presenting a 71 year old woman with compulsive unilateral involuntary groping and grasping movements of left hand for 2 years (alien hand syndrome-ALS). Neurological examination revealed also dystonia in left limb and generalized bradykinesia. The most likely diagnosis of these symptoms was CBS. A few months later she was admitted to the rehabilitation ward and the fracture of ulna during the training occurred. The fracture could not be treated by a cast because of alien hand syndrome (ALS); instead a soft splint was applied. After 2 months she reported paroxysmal pain and stiffness and erythema in her broken limb. Swelling, allodynia and dystonic posture of left upper limb was also seen and CRPS type I was diagnosed. Botulin toxin was applied with reduction of dystonia symptoms in the elbow. Patient suffered deeply with chronic pain and depression and did not want to continue rehabilitation programs.

Results and conclusions. To our knowledge this is the first case in the literature describing ALS probably as a feature of CBS and complicated by a broken arm. CRPS and CBS share common features. Dystonia is present in both disorders. In our patient dystonic movements exacerbated deeply after limb fracture resulting in the disappearance of continuous hand movements (ALS). In patient with ALS and dystonia the osteoporotic changes may occur more frequently because of immobilization, which may increase the risk of fractures. There is no current recommendation how to improve the movement deficit in those patients.

Figure 1 (limb fracture).

Figure 2 and 3 before and after fracture.