



The PSP Association's International Medical Workshop 7th July 2009

ABSTRACT

Title of Talk: AMANTADINE: FROM SYMPTOMATIC TO DISEASE-MODIFYING TREATMENT IN PSP

Part 1: Speaker(s) details	
Title	Professor
Name	Gregor Wenning, MD PhD MSc
Position	Head, Section of Clinical Neurobiology, Department of Neurology, Medical University Innsbruck, Austria

Part 2: Abstract (Maximum 400 words) Please make your abstract easy to understand as it will appear on our website and will be read by people with PSP and their carers who are not scientists but who will want to understand your work and what it means for them.

Although amantadine has been used as an antiparkinsonian and more recently as antidyskinetic drug in patients with Parkinson's disease, its efficacy in atypical parkinsonian disorders including PSP appears to be limited based on uncontrolled open label experience. Controlled trials are required to fully establish the range of symptomatic benefit that can be achieved with amantadine in PSP. Whether amantadine exhibits neuroprotective effects in PSP is unknown, but there are several hints that this may be so. Memantine, an amantadine derivative and approved for Alzheimer's disease, has recently been shown to inhibit tau phosphorylation by inactivation of GSK-3. GSK-3 activation is a key pathogenic event in PSP and several GSK-3 inhibitors such as lithium and valproic acid are currently under investigation. Further, expression of excitatory amino acid transporters within the tauopathy lesions of PSP brains links glutamate excitotoxicity to the disease process. Amantadine may be a useful therapeutic player in this cascade by virtue of its NMDA receptor antagonistic properties. The full therapeutic potential of amantadine in PSP needs to be addressed in future studies.