# 9th Global Neuroscience Conference

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## Tarsal tunnel syndrome

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Tarsal Tunnel syndrome is the most common lower limb focal neuropathy. The pick-up rate is low with most Electrodiagnostic laboratories reporting 0.55% of all cases seen. This is probably due to a non-standard methodology in assessing this condition and a failure to take into account the complex nature of the nerve at the level of the tarsal tunnel.  The tibial nerve has 4 main branches, 9 different branching patterns. This study assessed the tibial nerve and evaluated 12 different parameters thus increasing significantly the diagnostic yield and electrodiagnostic sensitivity.  Pick up rate doing full assessment was significantly increased. Our study had a pick up rate of over 3% (41 positive cases out of a 1200 patient referral in a calendar year). Significant findings of over 80% of positive cases had either prior injury or surgery to affected lower limb. The Calcaneal sensory study and the needle EMG to the distal H and ADQ muscles were the most sensitive tests. These 3 tests are not routinely performed in most labs. These findings: knowledge of the anatomy has improved hence performing the standard Motor test to the AH muscle and the Medial Plantar sensory study only will significantly reduce the diagnostic yield, hence a complete assessment has to be performed to cater for the variable anatomy. The confirmation of the diagnosis is often based in the literature on successful surgery which is flawed as the results are poor [48-70% success rate]. This study suggests that this 12 parameter assessment becomes the standard assessment for TTS.

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## Sleep architecture and neuropsychological profile of first episode drug naive psychotic patients

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**Aim of this study:** To investigate the sleep parameters, spindle characteristics and cognitive functions of first epizod drug naive psychotic patients (Brief psychotic disorder, shizophreni form disorder and shizophrenia). In the context of this study we are expecting to understand different dimensions of the clinical characteristics of the disorder by investigating the sleep structure and its relationship with the cognitive functions.

**Methods:** The study sample consisted of 19 drug naive male inpatients between the age of 20 and 25; who has non-effective first epizod psychotic disorder diagnose and whose year of education is at least 8. The healthy controls were similar according to age, sex and duration of education. Sleep parameters were included some macro (sleep structure and sleep contunuity) and micro (sleep spindle) variables. We conducted two days polisomnographic recording consequently. We evaluated some congnitive functions such as memory, attention, learning, verbal fluency, working memory by neuropsychological tests. We are continuing our statistical analyses on our sample. Our dependent variables are sleep latence, REM latence, duration of REM and stage 2, sleep period time, sleep efficiency index; sleep spindle dencity, frequency and amplitude; some neuropsychological test scores,as well.

**Results:** The variables were peak frequency (controls =12.71, Sd= 0.54; patients =12.78; Sd= 0.52) mean frequency (controls =12.58, Sd= 0.77; patients =11.18; Sd= 0.52), duration, (controls =0.97, Sd= 0.96; patients =1.04, Sd= 0.96) amplitude (controls =38.68, Sd= 6.26; patients =37.51; Sd= 2.21), spindle density (controls =0.64, Sd= 0.33; patients =0.56; Sd= 0.17) and spindle activity (controls =38.34, Sd= 7.86; patients =39.03; Sd= 5.00) .

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