



POSTER PRESENTATION

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PReS-FINAL-2252: Descriptive analysis of pediatric autoimmune neuropsychiatric disorder associated with streptococcus infection (PANDAS) in a cohort of 65 Italian patients

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Introduction

PANDAS includes neuropsychiatric symptoms, mainly obsessive-compulsive disorder (OCD) or tics, temporally associated with an immune-mediated response to group A β -hemolytic *Streptococcus* (GAS) infections, which suddenly start before puberty and display remitting/relapsing course.

Objectives

To describe clinical features of a cohort of 65 Italian pts with previous confirmed GAS infection and sudden occurrence of OCD and/or tics.

Methods

Descriptive analysis of a cohort of Italian patients with PANDAS. Between may 2009 - may 2013 we observed 65 pts (50 M, 15 F, mean age: 100.8 ± 32.9 months) with OCD and/or tics starting before puberty, associated with a previous GAS infection. Demographic and familiar data, routine and specific laboratory data: thyroid function, autoimmunity tests (ANA, anti-dsDNA, anti-ENA, anti-cardiolipin, and anti-tissue transglutaminase antibodies) were collected. 55/65 underwent brain MRI, all EEG, echocardiography and neuropsychiatric evaluation.

Results

13/65 pts (20%) born from Caesarean section, 60/65 (92.3%) full-term, 32/65 (49.2%) had familiars with OCD/tics or other neurologic diseases, and 57/65

(87.7%) did sports. Acute and dramatic onset occurred at a mean age of 74.3 ± 25.9 months (range 24-160). Out of 65 pts, 22 (33.8%) started with motor tics; 2 (3.1%) with OCD; 5 (7.7%) with motor/vocal tics; 28 (43.1%) with motor tics and OCD; 1 (1.5%) with vocal tics and compulsive behavior and 7 (10.8%) with motor/vocal tics and OCD. 41/65 patients (63.1%) had previously pharyngitis, otitis and/or upper airway infections, 1 impetigo. Brain MRI, EEG, thyroid tests, and coeliac disease screening were normal in all. Mean age to diagnosis 101.2 ± 29.9 months. At onset and at our first clinical evaluation inflammatory parameters were negative in all. Five (7.7%) had *anti-streptolysin* O titer less than 250 IU, 20 (30.8%) between 250 and 550 IU, 29 (44.6%) over 500 IU. Anti-DNase titer was increased (650-1200 U) in 38 (58.5%). All pts received benzathine benzylpenicillin. Sertraline or haloperidol were added in 10, and a psychotherapeutic help in 6. Seventy eight, 5% pts displayed complete or partial remission of initial symptoms.

Conclusion

Our preliminary data show that PANDAS is mainly observed in males with familiar recurrence of different motor disturbances, clinical onset occurs at a mean age of 6 ± 2 years with the coexistence of OCD and motor tics in most cases, and increased anti-DNase titer is found in 58.5% of patients. Benzathine benzylpenicillin has resulted effective in 78.5% of cases with complete/partial remission of symptoms. New studies on large prospective cohorts of patients of different age and the identification of reliable biomarkers indicating early diagnosis and outcome of PANDAS are needed.

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Disclosure of interest

None declared.

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