

PANDAS and PANS

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2015

Definitions

- **PANDAS**: abbreviation for **Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal infections**. This term is used to describe a subset of children and adolescents who have Obsessive Compulsive Disorder (OCD) and/or tic disorders, in whom symptoms worsen following strept infections (NIMI).

Criteria of PANDAS

- o 1. Presence of clinically significant obsessions, compulsions and/or tic
- o 2. Unusually abrupt onset of symptoms or a relapsing - remitting course of severity
- o 3. Prepubertal onset
- o 4. Association with other neuropsychiatric symptoms
- o 5. Association with streptococcal infection

Definitions

- **PANS:** According to NIMH, this is a newer term used to describe the larger class of acute-onset OCD. The abbreviation stands for **Pediatric Acute onset Neuropsychiatric Syndrome** and includes all cases of abrupt OCD.
- In July 2010 at NIH, the diagnostic criteria was changed so that a more rapid diagnosis and treatment plan could be implemented.

Criteria for PANS

- 1. Abrupt, dramatic onset of OCD (including severely restricted food intake)
- 2. Concurrent presence of additional neuropsychiatric symptoms, with similarly severe and acute onset, from at least two of seven categories.
- 3. Symptoms are not better explained by known neurological or medical disorders.

Seven Categories

- o 1. Anxiety (particularly separation)
- o 2. Emotional lability (extreme mood swings) and or depression.
- o 3. Irritability, aggression, and or severely oppositional behaviors
- o 4. Behavioral regression (baby talking, temper tantrums)
- o 5. Deterioration in school performance

Continuation of Categories

- o 6. Sensory or motor abnormalities
- o 7. Somatic signs and symptoms ,including sleep disturbances, bedwetting, or urinary frequency.

Diagnostic Work Up

- o MRI scan
- o Lumbar puncture
- o EEG
- o Laboratory studies to rule out infections or ongoing immunologic dysfunction
- o Erythrocyte Sedimentation Rate
- o C- reactive protein
- o Anti- streptococcal antibody titers
- o Anti- nuclear antibody titers

Treatment of PANDAS

- Symptomatic treatment of OCD symptoms with Cognitive Behavioral Therapy (CBT) and SSRI medication
- If SSRI is being used the dosage is low and go slowly since many children with PANDAS were very sensitive to side effects
- Treatment with antibiotics for acute episodes of PANDAS
- Immune-based Treatments

Continuation of Treatments

- Plasmapheresis
- Intravenous immunoglobulin
- Possible use of prophylactic antibiotics in PANDAS

Impact in Learning

- o Exacerabation of ADHD
- o Oppostional defiant behavior
- o Depression
- o Sleep disturbance
- o Motor disturbances
- o Focusing
- o Executive Dysfunction

Impact on Learning

- o Learning disability, particularly affecting math
- o Short term memory problems
- o Inability to concentrate
- o Dysgraphia due to deterioration of fine motor skills
- o Increased sensory responses, such as noise, light, touch and smell

Some Accommodations

- o Extended time
- o Shorten assignments
- o Copies of notes
- o Books on tape
- o Half days at school with wrap around home and hospital
- o Use of calculators
- o Cueing, graphic organizers
- o Chunking of info

Accommodations

- o Safe place to release tics
- o A flash pass
- o Behavioral support
- o Extra set of books at home


References

◦ intramural.nimh.nih.gov/pdn/web.htm

Resources

- o www.adhd.com.au/PANDAS.htm
- o intramural.nimh.nih.gov/pdn/web.htm

Websites

 [*pandasnetwork.org*](https://pandasnetwork.org)