



# **Devastating/dramatic *acute* onset neuropsychiatric syndrome: PANS, PANDAS or DANS**

**Encephalitis, regressive autism, ARFID, OCD, Tourette syndrome. Kleine-Levin  
syndrome. psychosis, bipolar disorder, schizophrenia, catatonia, multi-  
ESSENCE, Münchausen by proxy or DANS**

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# One of the first cases?

[J Autism Dev Disord](#) 1980 Jun;10(2):153-8.

## Schizophreniform psychosis in a case of mycoplasma pneumoniae encephalitis.

Gillberg C.

Abstract

A case of a 9-year-old girl with subacute schizophreniform psychosis following infection with mycoplasma pneumoniae is reported. A hasty--and faulty--etiological diagnosis of disturbed family interaction caused additional suffering in a situation in which worries were already overwhelming. A meticulous search for underlying organic background as well as for psychosocial factors is called for in every case of atypical schizophreniform psychosis.

# Another case from the mid 1980s

[J Autism Dev Disord.](#) 1985 15(4):389-97.

**Asperger's syndrome and recurrent psychosis--a case study.**

[Gillberg C.](#)

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## Abstract

A 14-year-old boy with mild mental retardation and behavioral features suggestive of the so called Asperger's syndrome is described. From the age of 8 years he has had recurrent episodes of lethargy. At the onset of puberty these episodes took on a more dramatic form and became more reminiscent of cycloid/manic-depressive psychosis. There is a family history of manic-depressive disorder. Neurobiological links with and differences from the syndrome of infantile autism were found. It is suggested that there is still too little evidence clearly to single out the entity of Asperger's syndrome from the spectrum of autistic syndromes.

# What about Kleine-Levin syndrome?

## **Kleine-Levin Syndrome: Unrecognized Diagnosis in Adolescent Psychiatry**

CHRISTOPHER GILLBERG, Prof., M. D.

Journal of the American Academy of Child and Adolescent Psychiatry 1987

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The case of a 15-year-old boy with Kleine-Levin syndrome is described. This uncommon diagnosis in child and adolescent psychiatry should always be considered in unusual cases with puzzling periodic symptomatology.

# And what about "teenage psychosis"/acute onset bipolar?

[J Child Psychol Psychiatry](#). 1986 27(1):87-98.

**Teenage psychoses--epidemiology, classification and reduced optimality in the pre-, peri- and neonatal periods.**

[Gillberg C](#), [Wahlström J](#), [Forsman A](#), [Hellgren L](#), [Gillberg IC](#).

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## Abstract

This is a population-based survey from Göteborg, Sweden, of all youngsters treated as in-patients for operationally defined 'psychotic disorders' during their teens. It was shown that 0.54% of all teenagers in Göteborg had been treated for such disorders at least once during the 13- to 19-year-old age period. Boys and girls were about equally affected, but schizophreniform disorders tended to be much more common among the boys and affective disorders more common among the girls. Child psychiatric services had been consulted much less frequently than adult ones, in spite of the many developmental aspects of the psychotic disorders. Scores for reduced optimality in the pre- and perinatal periods were marginally, though significantly, more common in the psychosis groups than in an age-, sex- and maternity clinic-matched control group.

# Or Heller dementia/disintegrative disorder/ regressive autism?

[Eur Child Adolesc Psychiatry](#). 1996 Sep;5(3):172-7.

**Heller syndrome in a pre-school boy. Proposed medical evaluation and hypothesized pathogenesis**

[Russo M](#)<sup>1</sup>, [Perry R](#), [Kolodny E](#), [Gillberg C](#).

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## Abstract

The case of a 6-year-old boy who developed childhood disintegrative disorder (Heller syndrome) at the age of 4 years is presented, and specifics of the neurologic evaluation are detailed. A table is provided suggesting the complete neurologic work-up with the potential findings for children presenting with signs and symptoms of deterioration. A hypothesis for the aetiology of Heller syndrome proposes that predisposing genetic factors when combined with an environmental stress result in the deposition of amyloid and the disruption of synaptic transmission during the deterioration period. Speculation that the deterioration may be self-limited by activation of an immune response is based upon earlier findings that interleukin 1 has been shown to be involved in the breakdown of amyloid precursor protein in humans.

## **PANS CRITERIA by Chang, Swedo et al**

- **1) Acute, dramatic onset of OCD or severe restriction of food intake**  
("GARDEN VARIETY" OCD OR TOURETTE SYNDROME?? ARFID??)
- **2) Concurrent presence of additional neuropsychiatric symptoms, (with similarly severe and acute onset), from at least two of the following seven categories (TWO OR MORE VERY COMMON IN ALL ESSENCE):**
  - **1. Anxiety**
  - **2. Emotional lability and/or depression**
  - **3. Irritability, aggression, and/or severely oppositional behaviors**
  - **4. Behavioral (developmental) regression**
  - **5. Deterioration in school performance (related to ADHD-like symptoms, memory deficits, cognitive changes)**
  - **6. Sensory or motor abnormalities**
  - **7. Somatic signs and symptoms, including sleep disturbances, enuresis, or urinary frequency**  
(ALL OF THESE USUALLY APPLY IN "REGRESSIVE AUTISM"??)
- **III. Symptoms are not better explained by a known neurologic or medical disorder.**

# Differential diagnosis in PANS

- 1) Regressive autism/disintegrative disorder in children under age 4 years
- 2) Landau-Kleffner syndrome in children under age 6 years
- 3) CSWS-syndrome in children over age 6 years
- 4) Kleine-Levin syndrome in adolescents (boys in particular)
- 5) Encephalitis (incl anti-NMDA-R) at all ages (CSF)
- 6) Bipolar disorder particularly adolescence but can happen earlier
- 7) Catatonia
- 8) Schizophrenia/psychosis
- 9) “Garden variety” OCD and Tourette syndrome
- 10) Sydenham’s chorea



## The PANS/DANS team of experts

- **Developmental psychiatrist**
- **Developmental neurologist/pediatrician with special training**
- **Developmental neuropsychologist**
- **Specialist nurse**
- **Immunologist/virologist/bacteriologist**
- **Established collaboration links with neurophysiology, neuroradiology, neurochemistry, genetics**
- **All in the context of ESSENCE research**
- **Regular team meetings**

# Remitting course of disorder

Before the infection



During the episode



After treatment



**THANK YOU**

Feeling even more confused now than before?

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