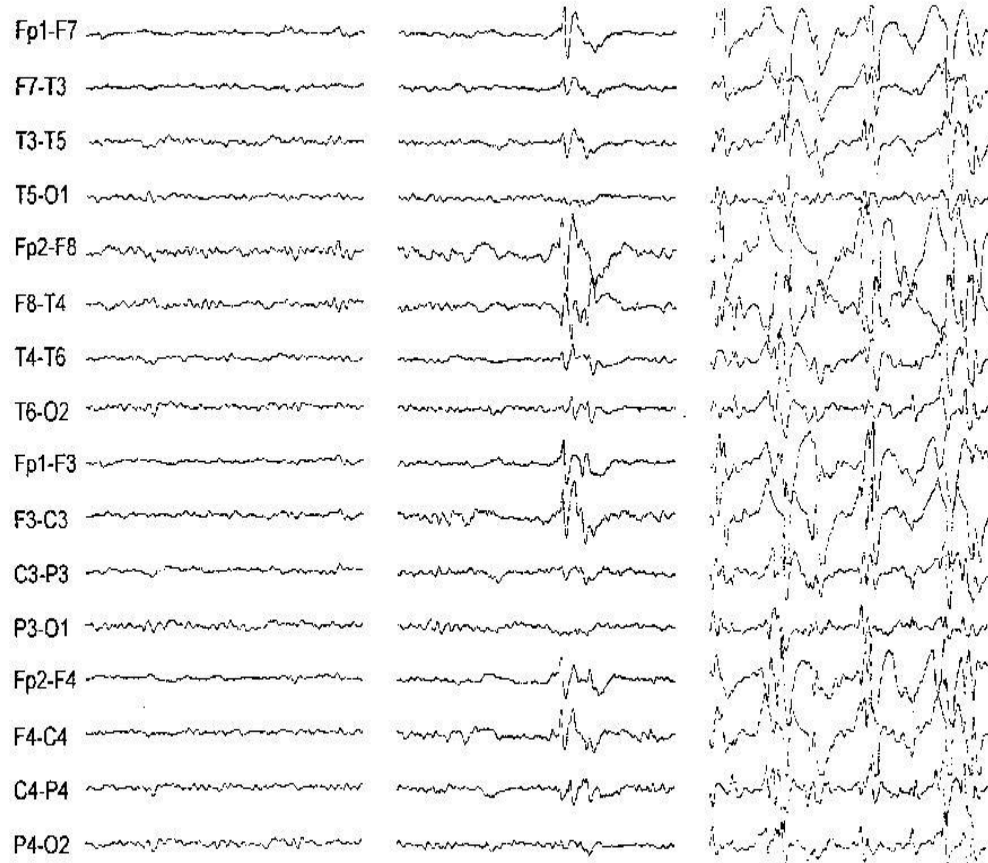


Regressive Epileptiform Aphasia and Autism

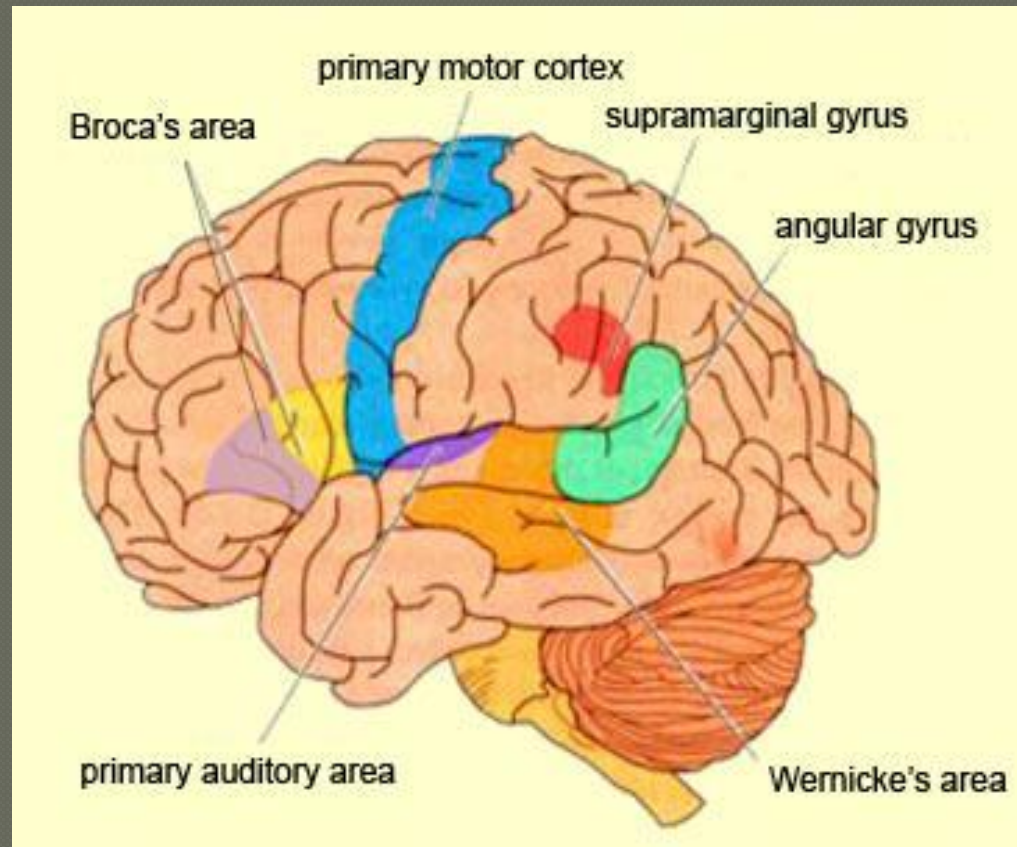
Elina Durchman MD
June 7, 2010

Landau Kleffner Syndrome (LKS)

- ◉ First reported by Landau and Kleffner in 1957
- ◉ Progressive or acute profound loss of receptive and expressive language ability in previously typically developed children
- ◉ Paroxysmal, sleep activated EEG changes
- ◉ Male predominance in 2:1 ratio
- ◉ Typical age of onset is 3-9 years
- ◉ More than 200 cases reported in the literature
- ◉ Permanent auditory agnosia and lifelong social and behavior disabilities are common



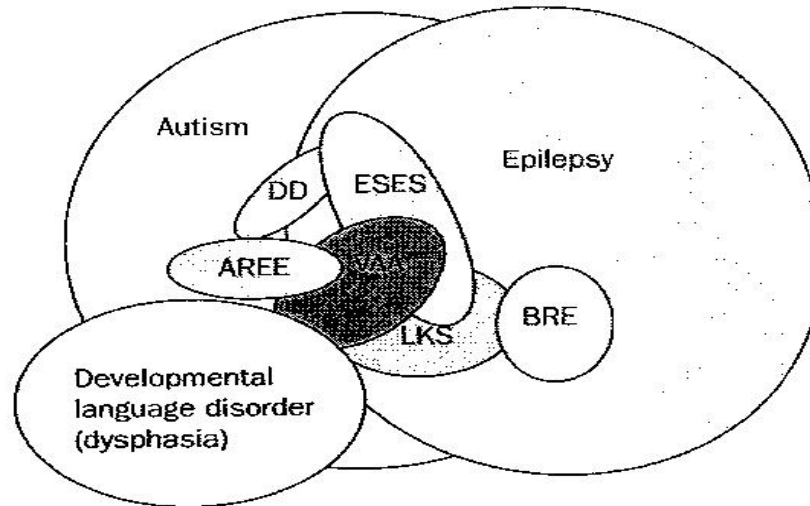
Perisylvian Region



Autism, Language Regression, and Epilepsy

- Approximately 30% of Children with Autism report language regression
- 1/3rd of children with autism have seizures
- The significance of epileptiform activity in children with autism is unresolved
- Limited data exists about the benefits of treating subclinical seizures in autism

Overlap of Childhood Disorders



Overlaps between autism with or without epilepsy and other disorders of young children with or without language regression. Although an attempt has been made to suggest the relative prevalence of each disorder by the size of its oval, the sizes of the symbols and overlaps should not be taken literally because they were constrained by the need to show the multiple overlaps clearly (eg, developmental language disorder should be larger, ESES smaller). AREE, autistic regression with an epileptiform EEG; BRE, benign rolandic epilepsy; DD, disintegrative disorder; VAA, verbal auditory agnosia.

Many questions remain

- ◎ What is the effect of treatment with anticonvulsants, corticosteroids, or surgery on behavior and language of children with epileptiform activity and language regression?
- ◎ What is the effect of epileptiform activity on cognition, language, and behavior in children without autism or developmental disorder?

ASD-LKS Study

- Follow-up and outcome study of 30 children with Landau-Kleffner Syndrome
- Can MEG localization of epileptic activities of LKS patients predict good vs. poor language and cognitive outcome: a) following surgery, and b) following non-invasive treatments?
- Is there a difference in treatment outcome that is related to the degree of ASD symptoms?

ASD-LKS Study

- ◎ **Study Methods:**
 - Structured Interviews
 - Standardized questionnaires
CBCL, SCQ
- ◎ Supported in part by NIMH/NIH R25 MH071286 grant (Kerim Munir, M.D., Principal Investigator, Boston Children's Hospital).
- ◎ Acknowledgments:
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