Identification of LKS

An epileptic disorder in normally developing children ages 3-8 characterized by:
- a sudden or gradual loss of language
- abnormal epileptiform activity during sleep EEG

Other identifying features:
- Overt seizures seen in 70-75% of cases
- No structural abnormalities on MRI or CT scans
- Unknown etiology
- More frequent in males
Similarities to Regressive Form of Autism

- Normal development followed by language deterioration
- Abnormal EEG's in a significant number of children with regressive autism
- Behaviors observed in both: resistance to change, echolalia, over-sensitivity to sound, social withdrawal

Differences between LKS and ASD

- Earlier age of regression in ASD
- Minimal language development when lost in ASD
- More severe social deficits in ASD
- Different EEG patterns
- EEG abnormalities do not necessarily differentiate regressive and non-regressive ASD

Communication Deficits in LKS

- Comprehension is affected first- hearing loss is suspected
- Gradual regression in expressive language
- Reported speech/language deficits: word-finding, paraphasias, mutism, perseveration, syntactic errors, telegraphic speech, misarticulations, apraxia, voice disorders
Verbal Auditory Agnosia
- Difficulty understanding speech in noise
- Speech perception errors
- Abnormal dichotic listening
- Auditory memory deficits
- Agnosia for non-speech sounds

Non-verbal and Behavioral
- Normal non-verbal intelligence
- Hyperactivity and/or attention deficit
- Negativity, temper tantrums, nightmares
- Depression, withdrawal

Medical Management
- Traditional antiepileptic drugs
- Valproic acid
- Corticosteroids
- Immunoglobulin therapy (IVIG)
- Multiple Subpial Transection (MST)
Speech-language and Educational Management
- Input modalities that bypass auditory modality: sign language, reading, cued articulation
- Auditory training, FM units, preferential seating
- Curricular adaptation
- 1:1 aide in regular classroom
- Inclusion or self-contained classrooms

Long-term Outcome
- Variable: poor to excellent
- Elimination of epileptiform abnormalities
- Continued dysfunction on auditory tasks regardless of language status
- Fluctuating language loss

Case Study
- Diagnosed at age 4.6 after gradual loss of language over one year
- Rapid recovery of language after IVIG treatment
- Present status: regular school placement with OT and resource room
- Attention and executive function deficits
- Possible dichotic listening abnormalities