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Reviewing biomedical and educational research in the field of autism and related disorders

DAN! conference a success

On June 15 and 16, the Autism Research Institute held its Defeat Autism Now! (DAN!) Tutorial Conference for Physicians. Nearly 200 enthusiastic attendees heard presentations by Sidney M. Baker, M.D., and Jon Pangborn, Ph.D., editors of the *Consensus Report Protocol: Clinical Options for Autism and Related Disorders.* Drs. Baker and Pangborn explained the purpose and interpretation of the clinical tests in the Protocol.

Other front-line researchers who spoke at the conference included Sudhir Gupta, M.D., Ph.D., who presented his findings on immunological dysfunction in autism and his use of the intravenous gamma globulin infusion treatment. This work has attracted international attention. He also presented even newer work due to be published this fall.

Stephen B. Edelson, M.D., presented his findings on environmental factors which cause or exacerbate autism, and effective treatments.

William Shaw, Ph.D., spoke on abnormal organic acid findings in autism, what they mean, and the implications for treatment.

This conference is the first ever devoted to effective biomedical methods of diagnosing and treating autistic patients now, not just trying the "drug of the month" to see if it might help.

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Copies of the DAN! Consensus Report Protocol, based on our 1995 DAN! Dallas conference, are available from ARI for $25. Audiotapes of the Chicago conference will be available soon. Write ARI for price and other information.

Surgery for Landau-Kleffner: which children are likely to benefit?

Landau-Kleffner syndrome, or LKS, is a seizure disorder whose symptoms sometimes resemble autism. Children with LKS generally develop normally at first, but then, at some point between the ages of one and eight, lose first their receptive and then their expressive language skills. While the children's nonverbal IQs remain at or above normal, many of them develop autistic symptoms such as withdrawal, aggression, and echolalia.

Although steroid treatment appears to reverse some cases of LKS, most children who develop the disorder have poor prognoses. In 1991, however, neurosurgeon Frank Morrell and colleagues reported on a surgical technique, called a multiple subpial transection, which resulted in marked improvement in four children with LKS. A new report by Morrell et al. indicates that surgical intervention is indeed a valuable approach for a subgroup of children with LKS, and offers criteria for selecting surgical subjects.

Morrell et al. report that they have now performed multiple subpial transection on 14 children with LKS, and that "11 of the 14 (79%), none of whom had used language to communicate for at least two years, are now speaking—a rate of sustained improvement considered unusual in this disorder." Of these 11, the researchers say, "Seven... have recovered age-appropriate speech, are in regular classes in school and no longer require speech therapy." Four others have improved markedly, and continue to make progress, but still require speech therapy.

Who qualifies for surgery?

Morrell and colleagues note that "the defining characteristic of LKS is a severe epileptiform EEG abnormality, most commonly a bilateral spike-wave disturbance, maximal in the posterior temporal regions of each hemisphere and virtually continuous during slow wave stages of sleep." The seizures of children with LKS may be overt or subtle, and sometimes involve only eye movements; they respond to anticonvulsants, but the drugs do not alter other symptoms.

While the seizures seen in LKS are expressed bilaterally, the researchers have found that surgery is successful only in children whose seizures *originate* in one

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Editor's Notepad:

Seizures, vitamin B6, DMG, and sudden speech

A mental light went on when I read the above article in which Dr. Morrell observed that the surgery which stops seizures in LKS patients often results in the sudden onset of speech in non-speaking children. Readers of the ARRI will be very much aware that in various articles written by me, and in many letters we have published from parents, the use of vitamin B6 and magnesium, as well as dimethylglycine (DMG), has frequently resulted in the rapid—sometimes overnight—appearance of speech in formerly non-speaking autistic children. Hard to believe, but true.

The sudden appearance of speech was mentioned in 1965, in the very first published account of a trial of B6 on an autistic child. The child's father, Professor Jeremy Noakes, was so impressed when his three-year-old son said "bus!" after being started on the B6 that he sent a letter to the *London Observer* about it.

In 1968, in the first clinical trial of B6, East German psychiatrist V. Bonisch reported that 3 of the 16 autistic children in her sample began speaking. Similarly, in 1965, in the first clinical trial of DMG, Russian investigators M. G. Blumena and T. L. Belyakova reported that speech appeared in autistic children. Why? How could speech somehow have developed in the brain, inaccessible until unlocked by the B6 or DMG?

I have pondered this strange phenomenon for 30 years. Finally, on reading, Morrell's remark—Bingo! Both vitamin B6 and DMG have strong antiseizure properties, sometimes proving effective even when many antiseizure drugs—in combination—have failed to prevent seizures (see ARRI 4/2, 1990, and 8/1, 1994).

Researchers, take note!

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