Journal Watch – The Webmaster

Concerning the ESSENCE of Child Psychiatry

Professor Christopher Gillberg is someone always worth listening to and his Blake Marsh lecture at the Royal College of Psychiatry meeting in 2009 makes some interesting points.

He postulates that because we have become focused on a categorical approach distinguishing between disorder and no disorder, clinics become too specialised and cater for the needs of only children with autism or Tourette or ADHD, etc. The sharing of symptoms between disorders means that their diffuseness is often underestimated and young children may present to only one specialist, whereas they need input in other areas.

The ESSENCE acronym refers to "Early Symptomatic Syndromes Eliciting Neurodevelopmental Clinical Examinations". This refers to children presenting before the ages of three to five with symptoms in general development, communication, social interaction, coordination, attention, activity, behaviour and/or sleep. He discusses studies showing that major problems in one ESSENCE domain before five years often signal problems in the same or overlapping domains later. Their diagnostic category may change over time but it still implies that early intervention should start in the areas in which the child has needs.

He makes the point that children with ESSENCE need to have a holistic approach to diagnosis and intervention. He defends himself as not being a retrogressive lumper, making the point that splitting in a state of the art way also has the inherent danger of delay in recognising that the child with ESSENCE will very likely have more than one problem.

A simpler way of summarising would be a strengths and weaknesses approach, familiar to developmental paediatricians.

Gillberg, C. *The ESSENCE of Child Psychiatry*: Research in Developmental Disabilities. 2010; 31: 1543 – 1551

Granpeesheh D., Taibox J., et. al. *Randomised trial of hyperbaric oxygen therapy for children with autism.* Research in Autism Spectrum Disorders. 2010; 4 (2): 268-275

You can but you don't have to

There is no such thing as a metabolic screen, only metabolic tests focussed on the specific child's presenting features.

Conventional wisdom had it that children with cerebral palsy and normal imaging (9-16%) should be tested for inborn errors of metabolism. J. Leonard and colleagues evaluated a cohort of 515 children

with 54 normal MRI scans.They did comprehensive metabolic testing, including tests for CSF neurotransmitters. No alternative diagnoses were made.

Leonard J.M., Cozens A.L., et.al. *Should children with cerebral palsy and normal imaging undergo testing for inherited metabolic disorders?* Developmental Medicine & Child Neurology 53 (3) 226-232 March 2011.

Old School Still Cool

In a multicentre, double blind, randomized controlled trial comparing three drugs in childhood absence seizures, the researchers found Ethosuximide and Valproic acid to be more effective than Lamotrigine, with Ethosuximide showing the smallest adverse effect on attention. It was a relatively short study with only 47% of children (209 of 449) free from treatment failure at week 16 to 20.

Attention was assessed using a continuous performance test. They specified a range of 2.7 – 5Hz for spike-wave discharges. It was reassuring that only eight children had generalised seizures, and this occurred with all three medications, as fear of these seizures often steer clinicians away from Ethosuximide. At least in this one study there is a clear winner

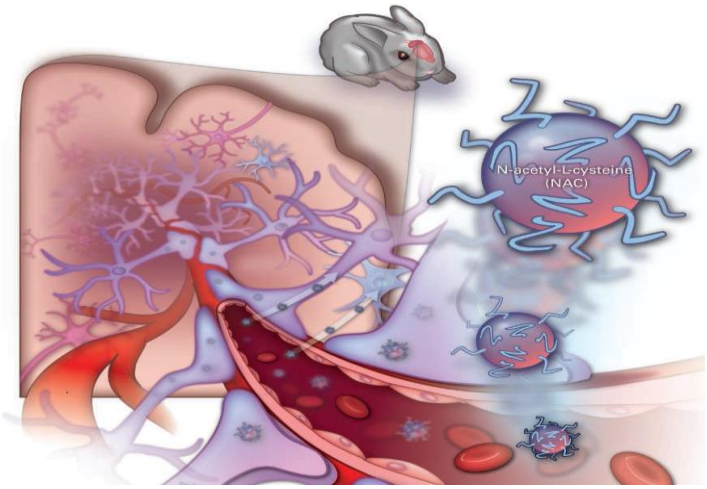
Ethosuximide, Valproic Acid and Lamotrigine in Childhood Absence Epilepsy. Glauser T, Cnaan A, et.al. N Engl J Med 362:9: 790-799

But will it work in humans as well?

Cerebral palsy affects a large percentage of high-risk infants. It has long been known to be a dynamic process in the brain of the premature infant that leads to damage, involving hypoxia, inflammation and migration.

A treatment which focuses on inflammation has had interesting results in rabbits. A husband and wife team (R and S Kannan) developed a therapy which delivers the antioxidant N-acetylcysteine via nanoparticles to rabbits with induced cerebral palsy. The animals were only followed for five days, but were walking and hopping nearly as well as healthy animals.

Further analysis showed the drug decreased markers of inflammation and stress via microglia and astrocytes, thus decreasing neuron loss and improving myelinization.



Science Translational Medicine (http: scim.ag/skannan)

Fear and loathing on the streets : The top 10 addiction articles :

Michael Weaver and colleagues presented their top articles selected from a total of 1600 published during 2011 to 2012. The list was reached by consensus and selected to represent different areas of addiction medicine. The 10 articles selected were as follows:

1. Yeh HH, Chen CY, Fang SY, Chang IS, Wu EC, Lin KM. Five-year trajectories of long-term benzodiazepine use by adolescents: patient, provider, and medication factors. *Psychiatr Serv.* 2011;62:900-7.
2. McBride O, Cheng HG. Exploring the emergence of alcohol use disorder symptoms in the two years after onset of drinking: findings from the National Surveys on Drug Use and Health. *Addiction*. 2011;106:555-63.
3. Volberg RA, Munck IM, Petry NM. A quick and simple screening method for pathological and problem gamblers in addiction programs and practices. *Am J Addict*. 2011;20:220-7.
4. Alford DP, LaBelle CT, Kretsch N, et al. Collaborative care of opioid-addicted patients in primary care using buprenorphine: five-year experience. *Arch Intern Med.* 2011;171:425-31.
5. Kolla BP, Mansukhani MP, Schneekloth T. Pharmacological treatment of insomnia in alcohol recovery: a systematic review. *Alcohol*. 2011;46:578-85.
6. Bohnert AS, Valenstein M, Blair MJ, et al. Association between opioid prescribing patterns and opioid overdose-related deaths. *JAMA*. 2011;305:1315-21.
7. Allsop DJ, Norberg MM, Copeland J, Fu S, Budney AJ. The Cannabis Withdrawal Scale development: patterns and predictors of cannabis withdrawal and distress. *Drug Alcohol Depend*. 2011;119:123-9.
8. West R, Zatonski W, Cedzynska M, et al. Placebo-controlled trial of cytisine for smoking

cessation. *N Engl J Med.* 2011;365:1193-200.
9. Elkashef A, Kahn R, Yu E, et al. Topiramate for the treatment of methamphetamine addiction: a multi-center placebo-controlled trial. *Addiction*. Published online December 16, 2011.
10. Levine A, Huang Y, Drisaldi B, et al. Molecular mechanism for a gateway drug: epigenetic changes initiated by nicotine prime gene expression by cocaine. *Sci Transl Med*. 2011;3:107-109.

In a similar vein, adolescents with substance disorders were shown to benefit from a 12-step programme. A descriptive field study followed teens who attended a 12-step programme (AA/NA). More frequent attendance was associated with greater abstinence.

Kelly JF et al. Alcoholism: Clinical and Experimental Research. *Published online*. April 17, 2012.

Another review article of note looks at recent advances in the genetic epidemiology and molecular genetics of substance use disorders. :Nature Neuroscience Vol.15:2. February 2012.

SOME THOUGHTS ON AUTISM IN SOUTH AFRICA

I have just returned from a stimulating and inspiring meeting of the global advocacy group arranged by AutismSpeaks in New York.

Here are some of the thoughts and ideas that came up for discussion. I feel we should consider these and develop a strategy for the South African context. The SA chapter of the Global Autism Public Health Initiative (University of Kwazulu Natal 2010) resulted in a position paper that highlights the imperatives in different service areas and is a solid starting point.

1. Autism spectrum disorders in the context of developmental disabilities

I think it is important to embed our ideas on the importance of autism specific screening and interventions in a clear message about the urgency of insuring optimal early childhood development. We should emphasise that not acting early in this respect is a costly mistake and include a vision of improving society by protecting children's minds.

We are setting the benchmark too low if we focus on mortality and millennium development goals alone. The WHO is planning a meeting where they want to incorporate childhood disabilities and its prevention in the MDG's and we can use this process to convey the message. The kind of interventions which benefit children on the spectrum will benefit those with other developmental disabilities.

2. Research priorities

We may arrive at context appropriate answers faster if we collaborate. As you know, we have a limited number of professionals trained in autism specific diagnostic instruments and a central computer based registry may generate real-time information which can provide useful epidemiological information, especially differences in rural versus urban areas.

2.1 Screening and identification

It is important to focus on early screening and compare broad band with autism specific screening tools. We can probably use a screening → assessment tool → weighted analysis design. I am interested in the "one year well baby

check-up" approach using the communication and symbolic behaviour scales developed by Amy Wetherby and colleagues. Other interesting alternatives would be the brief 'red flags' screening.

We may set the bar lower and use the ten question screen or road to health card screen, but the challenge of translation of material remains the same.

The door-to-door approach used by the Kwazulu-Natal initiative should yield very useful information in time.

2.2 Early Intervention

The goal of early identification should always be early intervention and, in our resource poor setting, we need models which are at best partly caretaker-driven.

There are other models, but AutismSpeaks is already involved in other projects utilising the Early Start Denver Model. I think we really need people who can train this intervention in South Africa .

2.3 ADOS II/Toddler ADOS/SCQ

AutismSpeaks is involved in translation of instruments into isiZulu, and I am very interested in an Afrikaans and SeSotho version and would love to collaborate on that process.

As our need is greatest in identifying toddlers I would be interested in the accuracy of second language speakers using the module I or Toddler ADOS with only the commands/questions translated. Many South Africans can speak and understand several languages at that level. We should aim to have one person in each province trained up to research level (where your expertise will come in).

3. Awareness and Advocacy

I think we should support the excellent work done by Jill Stacey and her team at AutismSA and build membership to ensure a large base to talk to the powers that be. We still need a national 'champion' who will unite all South Africans around autism. The issues around transitions and adult services also need to be kept in the foreground. It would be great if we can have a pan African conference on early child development , with a prominent autism component

4. Uniform message

I think we should start a debate on the essential elements of autism we want to communicate to all stakeholders. These are my preliminary ideas:

- **Autism is primarily a social disability;**
- **which starts early in life and;**
- **presents with infinite variety;**
- **and encompasses many autisms, which means that looking for a single cause is not sensible.**

We should probably add that in a South African context identifying children at risk and starting intervention is more important than waiting for a definitive diagnosis.

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Autism SA