

LETTER

Reduced Absorption of Lipophilic Anti-Epileptic Medications When Used Concomitantly with the Anti-Obesity Drug Orlistat

Dear Editors:

We suggest a reduced absorption of lipophilic anti-epileptic medications when used concomitantly with the anti-obesity drug orlistat (Xenical). An 18 year old epileptic woman presented with increased frequency of seizures. Her normal anti-epileptic medication was lamotrigine 200 mg daily. Her drug compliance and epileptic control was good. She had recently started orlistat therapy, 120 mg three times a day, for obesity. Since starting orlistat her seizure frequency had increased from one per month to more than one per week, sufficient for her to be admitted to hospital for further investigation. On her admission to hospital, her plasma lamotrigine level was 8 mmol/l (normal 0–15), although she had not previously had her levels measured.

Weight gain is a commonly reported side effect of anti-epileptic drugs. It has been observed with the lipophilic medications: valproic acid, carbamazepine, vigabatrin and gabapentin (Jallon and Picard, 2001). Orlistat is a chemically synthesised derivative of lipstatin, a natural product of *streptomyces toxytricini*, and is a potent selective inhibitor of pancreatic and gastric lipases (the principal enzymes responsible for the hydrolysis and subsequent absorption of dietary fat) (Melia A et al., 1996). Thus, orlistat inhibits absorption of dietary fat and is designed for the treatment of obesity. In March 2001, the National Institute for Health and Clinical Excellence (NICE) recommended the use of orlistat in obese patients, if they had lost at least 2.5 kg through dietary control and had a body mass index of greater than 30 kg/m² or greater than 27 kg/m² with risk factors (for instance diabetes, ischaemic heart disease, hypertension or obstructive sleep apnoea) (NICE guidelines, 2001).

Orlistat reduces the dietary absorption of fat and therefore can potentially alter the absorption of lipophilic drugs. There are no studies measuring lamotrigine's lipophilicity, nor the effect of lipophilicity on absorption. However it is considered to be a highly lipophilic drug (Personal communication, GST Drugs information, 2006).

Case reports show altered absorption between orlistat and other lipophilic drugs. For instance, sub-therapeutic levels of serum cyclosporine after treatment with orlistat in renal transplant patients (Evans S et al., 2003) and reduced absorption of amiodarone by approximately one quarter in cardiac patients. Fluoxetine, simvastatin, atenolol, furosemide, captopril and nifedipine absorption are not affected (Wber C et al., 1996). Chronic use of orlistat can lead to reduced absorption of fat soluble vitamins A, D, E, and K and interfere with warfarin dosage (MacWalter RS et al., 2003).

Antiepileptic medications therapeutic levels require monitoring because alterations can lead to deterioration in epileptic control. Closer monitoring of drug levels may be required during concomitant use of orlistat. We feel clarification of this possible interaction would be beneficial in this group of patients.

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NEXT MONTH IN *Epilepsia*

The January 2007 issue introduces a new Volume (volume 48) and a new look for *Epilepsia*. Get ready for a redesigned cover, as well as enhanced use of color.

As we start a new year, *Epilepsia* is happy to present a set of three historical reviews. Appropriately, in the first, Simon Shorvon reviews the "The Early History (1909-1961) of *Epilepsia*, the Journal of the International League Against Epilepsy, and Its Echoes Today." Howard Goodkin and colleagues then present a review of "The Founding of the American Epilepsy Society: 1936-1971." Finally, Mervyn Eadie gives us a portrait of "The Epileptology of John Thompson Dickson (1841-1874)."

The scientific theme of the January issue revolves around aspects of **Pediatric Epilepsy**, with special emphasis on **Ketogenic Diet** (and related) therapy. This theme is introduced with two critical reviews on ketogenic diet, one from Adam Hartman and Eileen Vining on clinical aspects of the diet, and the other by Kristopher Bough and Jong Rho on basic mechanisms of dietary treatments.

These reviews are followed by ORIGINAL RESEARCH and BRIEF COMMUNICATION papers on pediatric epilepsy-relevant topics that include various ketogenic diet-related research, animal models of pediatric epilepsy syndromes, West syndrome and infantile spasms, myoclonic epilepsy of infancy, markers of childhood epilepsy, and memory deficits and intellectual abilities in children with TLE.

Online Early

Harrington et al., "Altered Glutamate Receptor-Transporter Expression and Spontaneous Seizures in Rats Exposed to Methylazoxymethanol in Utero"

Halböök et al., "Ketogenic Diet Improves Sleep Quality in Children with Therapy-resistant Epilepsy"

Kerrigan et al., "Hypothalamic Hamartoma and Infantile Spasms"

Milh et al., "Inhibition of Glutamate Transporters Results in a 'Suppression-Burst' Pattern and Partial Seizures in the Newborn Rat"

Rauchenzauner et al., "Brain-type Natriuretic Peptide Secretion Following Febrile and Afebrile Seizures: A New Marker in Childhood Epilepsy?"

Werner et al., "Effects of Valproate on Acylcarnitines in Children with Epilepsy Using ESI-MS/MS"

ANNOUNCEMENTS

Morris-Coole Prize

The ILAE is proud to announce the establishment of a new prize, the **Morris-Coole Prize** for advancing knowledge in the field of epilepsy. The Prize – **10,000 euros** – will be awarded annually for a paper published in *Epilepsia* (during the preceding calendar year) that has made an exceptional contribution toward advancing knowledge in the field of epilepsy. The winning paper will be chosen by a panel comprised of the President of the ILAE and the two Editors-in-Chief of *Epilepsia*. This panel will consider a short-list of papers nominated by the Associate Editors of *Epilepsia*. Only full length original research articles are eligible. Nominated papers can report either basic or clinical findings, in any epilepsy-relevant research field. Eligible papers must not be (or have been) subject of any previous prize or award.

The **Morris-Coole Prize** will be awarded during the opening ceremony of the International Epilepsy Congress or of a major regional ILAE conference. The awardee(s) will be invited to present findings reported in the Prize-winning paper at a **Morris-Coole Lecture** at the conference. The 2006 award will be announced in the spring of 2007, and will be awarded at the XXVIIth International Epilepsy Congress in July 2007.

The Prize has been established through the generosity of Mr. Christopher Morris-Coole and his wife Sandra, with the intention of stimulating epilepsy research. Their hope is that the Prize will reward and encourage young researchers in the field, and provide an incentive to excellence.

ILAE Information Officer

ILAE members are invited to apply for the post of ILAE Information Officer. This executive post has overall responsibility for ILAE information and communication, and reports to the ILAE President. This is an unpaid position and will be appointed from April 1st 2007. The post entails the following duties:

- (a) ILAE newsletter (*EPIGRAPH*)
The appointee assumes the role of Editor of *EPIGRAPH*, the ILAE newsletter. *EPIGRAPH* is published 4 times a year (3 online publications and one print publication). The Editor has overall responsibility for the newsletter (content and editorial policy). Duties involve the commissioning and editing of articles, planning content for future issues, writing editorials, and dealing with day to day correspondence in relation to the newsletter.
- (b) ILAE Website (<http://www.ilae.org>).
The appointee assumes the role of Editor of the ILAE Website (<http://www.ilae.org>), and has

overall responsibility for its structure, content, and editorial policy. The post involves commissioning and editing website content, updating the website, and dealing with day to day correspondence. The appointee also becomes Chair of the ILAE Website Task Force and is responsible for convening 2–3 meetings a year of the Task Force, taking the minutes of the meeting, and reporting to the ILAE Executive Committee on Task Force matters.

(c) ILAE Archive.

The appointee assumes oversight of the ILAE archive held in the Swiss Epilepsy Centre in Zurich. The appointee is responsible for archive policy and for commissioning accessions to the archive.

(d) ILAE Executive Committee.

The appointee becomes a non-voting member of the ILAE Executive Committee, and is expected to attend the biannual meetings of the ILAE Executive Committee and also the joint annual meetings of the ILAE and IBE Executive Committees. The appointee is responsible for the preparation of reports for the ILAE Executive Committee meetings and for inclusion in the ILAE Annual Report, and for presentations at other ILAE events (e.g., chapter conventions).

(e) Other points.

The appointee has overall responsibility for ILAE communications and information and for their development. The appointee will be expected to make recommendations for the strategic development of ILAE communication policy and to carry out other duties as directed by the ILAE President.

The appointee is assisted currently, in relation to tasks (a) and (b) above, by the ILAE Administrative Office which provides technical, logistical and editorial support.

The appointee must be able to communicate fluently in the English language; competence in other languages is desirable. He/she must be completely familiar with a range of conventional IT facilities. He/she must have a detailed knowledge of epilepsy and the ILAE. The most suitable candidates will be those who are medically qualified, have specialized in epilepsy, and who have been previously involved in ILAE. It is important for the appointee

to be well organized, efficient (able to meet deadlines), and enthusiastic. The post requires a significant work commitment.

The post has been held since 1997 by Dr Simon Shorvon, and further details can be obtained from him (s.shorvon@ion.ucl.ac.uk) or from the ILAE President, Professor Peter Wolf (PeterW@vestamt.dk)

Applications, including a CV and an outline proposal, should be submitted to Professor Peter Wolf, ILAE President, by post and email

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The Deadline for submission of applications is January 31st 2007.

Michael Prize 2005/2006

For the best contribution to scientific and clinical research which promotes further development in epileptology.

The Michael Prize is one of the most highly regarded international awards for the best contribution to scientific and clinical research promoting further developments in epileptology. It is awarded biannually and specially designed to attract younger scientists (under 45 years of age). Applications should be submitted in English or German and the prize money is 15.000 Euros. Publications which have appeared in 2005/2006 or papers of the same period not yet published will be considered. Members of the Jury are Colin Binnie, London, UK; Uwe Heinemann, Berlin, Germany; and Solomon Moshé, New York, USA. Since 2006 the Michael Prize has been sponsored by UCB International. Articles and papers, together with a curriculum vitae, should be submitted in triplicate to Stiftung Michael by December 31, 2006. For applications or for more information contact Stiftung Michael, Muenzkamp 5, D–22339 Hamburg, Germany. Tel.: +49 (0)40 5388540 Fax: +49 (0)40 5381559 e-mail: stiftungmichael@t-online.de

CALENDAR OF MEETINGS

December 2006**60th Annual Meeting of the American Epilepsy Society (AES) – First North American Regional Epilepsy Congress**

1–5 December

San Diego, California, USA

<http://www.aesnet.org/Visitors/AnnualMeeting/index.cfm>January 2007**9th Asian Oceanian Congress of Child Neurology**

24–27 January

Cebu City, Cebu Philippines

<http://www.aoccn2007.org>February 2007**1st Latin American Summer School on Epilepsy (LASSE)**

4–14 February

São Paulo, Brazil

email: esper.nexp@epm.br**1st East Mediterranean Epilepsy Congress**

21–24 February

Luxor, Egypt

<http://www.epilepsyluxor2007.org>April 2007**International Symposium on Biology of Seizure Susceptibility (ISBSS): (10th Annual Meeting of Infantile Seizure Society)**

7–8 April

Tokyo, Japan

http://web.sc.itc.keio.ac.jp/pedia/testpage/top_eng10.html**First London Colloquium on Status Epilepticus**

12–14 April

London, UK

<http://www.conference2k.com/statusconf.asp>**American Academy of Neurology (AAN) 59th Annual Meeting**

28 April–5 May

Boston, MA, USA

<http://www.aan.com>June 2007**17th European Neurological Society (ENS) Meeting**

16–20 June

Rhodes, Greece

<http://www.akm.ch/ens2007/>July 2007**27th International Epilepsy Congress**

8–12 July

Singapore

<http://www.epilepsysingapore2007.org>