



Annals of Delirium March 2011

Editorial

There was an editorial in Chest the end of last year uncompromisingly titled “Death by Compassion: Iatrogenesis within a Profession in Denial”. The topic was ICU delirium and Drs Dunn and Murphy were pointing out that the very things we do to try and ensure patients comfort and stability are worsening their chances of survival. Of course that is not all made worse by clinicians aggravating or worsening delirium in patients. At the same time in the British Journal of Intensive Care Professor Rennie, who works in Clinical Physiology at the University of Nottingham, referred to “what is effectively brain damage in patients in intensive care” and called for improved monitoring of cognitive state and attention to rehabilitative care. In this commentary he did not use the word delirium at all. Lets (if you don’t already) start pointing out to colleagues that every time they use the words confused, disorientated, agitated, encephalopathic the patient has delirium. If you are in a position to do so get them to write the word in the patient record. Delirium is a powerful word – let’s spread it!

In this edition of the Annals we have the winning oral and poster abstracts from the EDA annual congress. I know the judges found it difficult to pick these out above the other excellent abstracts submitted – those of you who attended the meeting will understand why. We present the usual journal review and news with some useful web links provided by Professor Ely.

Important to know, the EDA Board is in the process of change and is now in a position to call for new members to be elected as and when current members stand down. Our president Jouko Laurila presents our newest appointed members and asks for interested individuals to step forward to take the EDA into the future.

As always, contributions are welcome for the next newsletter; opinion, report or experiences recorded;
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References:
Dunn WF and Murphy J. Death by Compassion – Dilemmas and Opportunities in Sedation Delivery: Iatrogenesis within a profession in denial. Chest 2010; 138: 1034-35
Renne MJ. More attention needed for cognitive function in critical care? British Journal of Intensive Care Winter 2010.

EDA Board

Current members:

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Barbro Robertsson
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If you are interesting in joining the EDA Board we welcome your application. Now that the European Delirium Association is established election to the committee will be a formal process and for fixed term(s). For further details contact Alasdair MacLulich a.maclulich@ed.ac.uk

Meet the new members 2010

Birgitta Olofsson (Umeå meeting lead)

Senior lecturer at the Department of Nursing, Umeå University, involved in a number of delirium projects including the impact on functional outcomes in the elderly and prevalence in the very elderly. Umeå is hosting the 2011 EDA scientific congress.

Christine Thomas (Bielefeld meeting lead)

Head physician in department of Geriatric Psychiatry, Evangelical Hospital Bielefeld, Germany whose work in delirium covers serum anticholinergic activity and EEG changes in frail acutely ill elderly patients.

Meera Agar (Australasian Liaison)

Palliative Medicine Specialist and Clinical Director of inpatient unit in Sydney. Her interests are clinical decision making in delirium management in palliative care, RCTs in delirium therapeutics in palliative care and understanding the biology of delirium in advanced cancer.

Colm Cunningham (Basic Science)

Wellcome Trust Senior Research Fellow. Initially looking into CNS inflammation, since 2006 he has been working on basic research in delirium based on his discovery of microglial priming and exaggerated CNS inflammatory responses to systemic inflammatory episodes. He is currently focusing on prior pathology, delirium and long term cognitive decline.

Andrew Teodorczuk (Education)

Consultant Psychiatrist and Honorary Clinical Senior Lecturer, North Tyneside Hospital, North Shields, England. His specialist interests are promoting excellence in clinical education and training.

Winning abstracts

European Delirium Association, 5th Scientific Congress On Delirium Amsterdam November 2010

Poster abstract:

Hyponatremia and delirium in hospitalized geriatric patients

T. Zieschang, M. Wolf, T. Vellappallil, P.

Oster, D. Kopf

Bethanien Hospital, Geriatric Centre of the University of Heidelberg, Heidelberg, Germany

Introduction: Delirium is a frequent complication of hospitalization in geriatric patients and is associated with high mortality. Hyponatremia has been described as a risk factor of delirium, however data on this association are sparse.

Methods: We conducted a case-control study in patients hospitalized in a geriatric hospital. During an 8 month interval, all cases of hyponatremia ($\text{Na} < 135 \text{ mmol/l}$) in the hospital were identified. In addition, consenting patients with moderate to severe hyponatremia ($\text{MSH}, \text{Na} \leq 130$) were included in a prospective case-control study and matched with normonatremic control patients (NoNa) for gender, age and admission diagnosis. Patients were screened for delirium by the Confusion Assessment Method (CAM). Diagnosis according to DSM IV was then made by clinical interview. Mortality was

ascertained after 6 months. Frequencies were compared by Chi square test.

Results: Prevalence of hyponatremia < 135 was 20.0%. We identified 179 patients with MSH (7.6% of all hospitalized patients). 141 MSH patients were willing to participate in our study (mean age 81.9 years) and were matched with 141 NoNa controls (mean age 82.8 years). Prevalence of delirium was 19.9% in MSH patients vs. 8.5% in NoNa controls ($p=0.009$). So far, 6 month mortality data of approximately 80% of all patients are available. In patients with MSH, mortality was 32.2% vs. 17.8% in matched controls ($p=0.029$). In patients with delirium, mortality was 41.9% vs. 23.8% in non-delirious patients ($p=0.036$).

Conclusion: We conclude that hyponatremia is a powerful risk factor for delirium in hospitalized geriatric patients.

Oral presentation

Rivastigmine does not decrease duration of delirium and may increase mortality in critically ill patients: a multicentre, double-blind, randomized, placebo-controlled add-on trial

M.M.J. van Eijk, K.C.B. Roes, M.L.H. Honing, M.A. Kuiper, A. Karakus, M. van der Jagt, P.E. Spronk, W.A. van Gool, R.C. van der Mast, J. Kesecioglu, A.J.C. Slooter

Introduction

Delirium is frequently encountered in critically ill patients and is associated with adverse outcome. Impaired cholinergic neurotransmission seems to play an important role in the development of delirium. The cholinesterase inhibitor rivastigmine is increasingly prescribed “off-label” to delirious patients who do not respond to antipsychotics. We aimed to study whether rivastigmine shortens the duration of delirium in critically ill patients.

Methods

In this multicentre, double-blind trial, Intensive Care Unit (ICU) patients with delirium were randomised to rivastigmine or placebo, as add-on medication to standard pharmacotherapy with haloperidol. The primary outcome was duration of hospital delirium.

Results

After inclusion of 104 patients with delirium, the Data Safety Monitoring Board recommended halting the trial because 12 of the 54 patients who received rivastigmine had died compared to 4 of the 50 patients who received placebo ($p=0.07$, corrected for multiple interim analyses). The duration of hospital delirium in

the rivastigmine group (median 5 days, range: 1 to 64) tended to be longer in the placebo arm (median 3 days, range: 1 to 28 days), which almost reached statistical significance (Mann-Whitney test, $p=0.06$).

Discussion

This is the first double-blind, randomized, placebo controlled trial on a cholinesterase inhibitor to treat delirium in ICU patients. Continuous follow-up ensured correct data collection and the safety of participants. With post-hoc analyses no explanation for the higher mortality rate was found in the rivastigmine group. The trial was halted because of safety concerns and lack of evidence for any beneficial effects on the primary outcome.

Conclusion

Our trial indicated that in ICU patients, rivastigmine did not decrease the duration of delirium. Moreover, an increased mortality associated with the use of rivastigmine could not be ruled out.

Funding

ZonMw and the Netherlands Brain Foundation. Novartis provided the study medication but had no role in the design, conduct or presentation of the study.

Did you see? – Editor's Choice

This month we are recommending one paper from 2009 reviewing delirium and cognitive impairment, one to back up my editorial and two more recent publications on pharmacological treatment of delirium. If you are unable to order these free from your hospital library try emailing the corresponding author direct and ask for a reprint/copy.

Delirium and long-term cognitive impairment. Alasdair MacLulich, Anna Beaglehole, Roanna Hall and David Meagher. International Review of Psychiatry 2009; 21: 30-42.

A comprehensive and impressive clinical review of post 2003 publications on long-term cognitive outcomes of delirium which includes a discussion of putative mechanisms and explanations.

Under-reporting of delirium in the NHS. Clegg A, Westby M, Young JB. Age Ageing. 2011; 40:283-6

This large study in the National Health Service in England looked at the proportion of times that 'delirium' was included in the discharge diagnosis list of acute hospital inpatients aged over 65 in the specialties of general and geriatric medicine, critical care, emergency medicine and trauma and orthopaedics. These rates were compared with those found in a systematic review of studies of delirium frequency in these clinical areas. Only 0.39% of patients in general and geriatric medicine had delirium listed among their diagnoses; in orthopaedics the rate was 0.05%. This compared with study rates of 23.6% and 44.8% in these specialties, respectively. This incredible gap in delirium reporting is a major barrier to good delirium care and we hope that studies like this and of course the activities of the EDA will help to increase the rates of formal recognition of delirium.

Delayed treatment of delirium increases mortality rate in Intensive Care Unit patients. A Heymann, F Radtke, A Schiemann et al. The Journal of International Medical Research 2010; 38: 1584-1595.

The title is certainly eye-catching! For me, this paper from Berlin is interesting not so much for what it demonstrates as the premise that delirium, once detected, should be treated with drugs which are confidently expected to work on the delirium itself rather than symptomatically - and that regardless of motoric subtype. The study compares 184 patients with delirium as detected by the Delirium Detection Score who received therapy within 24 hours with 20 delirious patients whose treatment was delayed beyond 24 hours. The DDS has a high specificity (91%) but low sensitivity (30%) in ICU patients some of which were ventilated. The therapy included antipsychotics &/or clonidine &/or benzodiazepines - which probably confounds the results. The delayed therapy group had a significantly higher risk of death.

Apripazole and haloperidol in the treatment of delirium. S Boettger, M Friedlander, W Breitbart and S Passik. Australian and New Zealand Journal of Psychiatry 2011; early online 1-5

A secondary analysis generated out of a delirium database, data collected prospectively 2004-2006 in New York. 21 patients who received apripazole were case matched compared with 21 patients who were given haloperidol. The MDAS scores in all patients improved over time. Hypoactive delirium was relieved more quickly and with smaller doses (reassuring to those of us who use antipsychotics for hypoactive delirium and intuitively generally use half of a "regular dose"). It was concluded that apripazole may have comparable efficacy to haloperidol.

News

European Delirium Association 6th Scientific Congress

Book your leave now and start knitting warm clothes. The 2011 Annual Delirium Congress will be held 17th to 18th November in Umeå, Sweden – that's about 700 km north of Stockholm. Our hosts will be Professor Yngve Gustafson and Dr Birgitta Olofsson. The call for oral and paper abstracts is now open; send to birgitta.olofsson@nurs.umu.se by 15th September.

American Delirium Society Inaugural Conference

The inaugural meeting of the American Delirium Society will be held June 6-7 in Indianapolis, Indiana, at the Omni Severn Hotel, with a reception the evening before. Registration application forms available on the website. The meeting will address education, training, pathophysiology, ICU-related issues, and surgical/cardiovascular topics. Speakers are coming from Europe (EDA members!) as well as the US.

This will be followed by a conference funded by the Veterans Affairs office of the US Government; this will include delirium-related topics that focus mostly on emergent conditions in the frail elderly. This will be held at a different place in Indianapolis, during the 8th and morning of the 9th, which will hopefully make the trip more worthwhile for overseas delegates.

<http://americandeliriumsociety.org/>

Call for research on dementia (UK)

The NIHR Dementia Themed Call is now open. It extends across the translational pathway, covering fields of cause, cure and care, including prevention. Seven of the NIHR managed research programmes are participating. Well run targeted research will help demonstrate whether delirium is a preventable cause of long-term cognitive impairment or not.

www.nihr.ac.uk/research/Pages/Dementia.aspx

Delirium in the media

Delirium featured in the informed patient area of the Wall Street Journal in February. The article features interviews with patients and comments from Wes Ely and our own Barbara Kamholz. Well done.

<http://online.wsj.com/article/SB10001424052748704081604576144321242020948.html>

You can also tune in to a radio interview with Wes Ely on WLPN Nashville public radio <http://wpln.org/?p=23687>