Letters

Creutzfeldt–Jakob disease: From presentation to palliative care

Thank you for this case description. On a Creutzfeldt–Jakob disease search, there are several references to this[1–5] and other neurological sequelae following COVID-19 vaccination. I am curious about whether this person had prior COVID-19 vaccinations.

Author

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Competing interests: None.

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Response to a question regarding the article: Creutzfeldt–Jakob disease: From presentation to palliative care

Thank you for your question regarding the paper: Creutzfeldt–Jakob disease: From presentation to palliative care.[1]

Given the public and media interest in this area, awareness of the current research is vital for general practitioners.

The case outlined in the article 'Creutzfeldt–Jakob disease: From presentation to palliative care' published in the *AJGP* October 2024 issue was prior to 2018, well before COVID-19 vaccinations. To the best knowledge of the author, this person had no other recent vaccinations prior to developing symptoms.

It is crucial for awareness of prion diseases in Australia to highlight that the human form of prion diseases, sporadic Creutzfeldt–Jakob disease (CJD) and genetic prion disease, existed before COVID-19 vaccination, with the disease first recognised in the 1920s, with an ongoing but modest increase in the number of cases since then because of awareness and improvement in diagnostic tools. Currently, there are approximately 65 identified cases of CJD per year in Australia.[2]

The study supplied by the reader posing the question, written by Perez et al (refer to reference 1 in the letter from Balint), appears to use variant CJD statistics from France[3] – 29 cases in total to date[4] instead of the actual incidence for France, which is approximately 150 cases of sporadic and genetic cases per year.[3] Variant CJD (vCJD) is a rare and almost extinct acquired form of prion disease first recognised in 1996 with no identified cases in Australia.[5] Additionally, the description of the principal case in the study by Perez et al follows the natural progression of sporadic CJD (sCJD), with death at 12 months after first symptom onset.[5] The remainder of the cases discussed were also in keeping with expected sCJD disease trajectories – death within a few short weeks to months after symptom onset.[5]

The other three studies using case reports also follow the expected trajectory of sCJD.[5] Current expert opinion reflects that the study by Classen (supplied by the reader posing the question; refer to reference 4 in the letter from Balint) lacked an experimental model and in isolation, appeared speculative, with no demonstrated connection between vaccination and sCJD.[6]

As such, the authors suggest conclusions cannot be made from these sources.

To address the published case reports and media attention surrounding this issue, Hermann et al published data outlining the effect of SARS-CoV-2 incidence and immunisation rates on sCJD disease incidence.[7] Their study demonstrated no time-related effect of SARS-CoV-2 incidence or immunisation rate on the incidence of sCJD. Additionally, no change in sCJD incidence from before or during the COVID-19 pandemic was identified. This study recommends ongoing review of sCJD surveillance data given the extended pre-clinical phase of sCJD, but reassuringly, to date, found no evidence that the COVID-19 pandemic or vaccination changed sCJD numbers.[7]

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Competing interests: DS has been a patient and palliative care advisor for the CJD Support Group Network since 2020, in a pro bono capacity. She has received a stipend to cover travel and expenses for promoting awareness at general practice conference and exhibition (GPCE) 2022, World Organization of Family Doctors (WONCA) 2023, the International Dementia Conference 2024 and for travel and accommodation to attend as a speaker at the 2022, 2023 and 2024 National CJD Support Group Network conference. SS has a salaried position as Director of CJDSGN and has received a stipend to cover meeting and travel expenses. SS is also a member of the CJD International Support Alliance and the CJD Support New Zealand Trust but does not receive payments for these roles. DR, as Assistant Director,

receives honoraria/volunteer expenses from the CJDSGN and a stipend for meeting expenses. The CJDSGN receives a funding grant from the Federal Department of Health and Aged Care.

AI declaration: The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript.

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The first author would like to thank the CJD Support Group Network for the support and information provided to assist the patient in the original case report and for access to expert opinion and resources regarding vaccination and prion disease.

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Response to the obesity and weight management *AJGP* focus issue

While I congratulate the *AJGP* on dedicating an entire issue to the critical subjects of obesity and weight management, I believe more is needed on the context of obesity. Affecting two-thirds of Australians, obesity and overweight are profound public health concerns.[1] Obesity meets the definition of a pandemic: 'an epidemic occurring worldwide, or over a very wide area, crossing international boundaries, and usually affecting a large number of people'.[2] Approaches based on the clinical care of overweight and obese individuals are severely inadequate for conditions occurring at this scale and have no impact on the underlying causes.[3] Being so common, overweight and obesity affect many doctors, and this is a further barrier to effective care.[4]

Changes in our physical, cultural, social and economic environments underlie the dramatic increases in obesity worldwide over the past 50 years. Every country is experiencing increases in obesity, and none has halted its growth.[3] Systems of agriculture and food production, marketing, transport and urban design underlie the increasing rates of obesity. Although obesity is increasing, many people's diets do not provide adequate micronutrients, leading to co-existing obesity and undernutrition. The fossil fuels driving these nutritional crises are also driving climate change, leading to what has been described as a syndemic of obesity, undernutrition and climate change.[3]

Thus obesity is caused by our political and economic systems, which are based on commercial imperatives, overconsumption and waste.[3] General practitioners (GPs) have responsibilities to educate and advocate to improve patients' outlooks through highlighting the systems causing the crises of obesity, undernutrition and climate change. GPs are credible sources of information for patients, and advocates for high-quality, integrated patient care.[5] As GPs, we must provide the best possible care, including education and advocacy for our patients' health.

Author

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Competing interests: RS is a member of the 'Doctors for the Environment Australia' and the 'Public Health Association of Australia'.

AI declaration: The author confirms that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript.

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RESEARCH LETTER

A survey of vitamin B6 in vitamins and supplements available for online purchase in Australia

Introduction

Vitamin B6 toxicity can cause irreversible neurological damage.[1] To know that they are at risk of vitamin B6 toxicity, consumers need to know that they are taking vitamin B6, understand how much they are taking and be aware that toxicity is possible.

Methods

The Chemist Warehouse website (www.chemistwarehouse.com.au) was accessed on 25 July 2024, and a search was conducted for 'vitamin' and 'B'. Products not containing vitamin B6, duplicates, size variations, flavour variations, meal replacements and products for children, teens, pregnancy or breastfeeding were excluded. Products were divided into categories based on naming, and pyridoxine equivalents were calculated.[2] Data were analysed with JASP Release 0.192.2 for Mac OS (JASP Team; https://jasp-stats.org/).

Results

Of 234 products, 16% included B in their name, 26% were described as multivitamins without specifying individual vitamins, 26% as named non-B vitamins and minerals, 25% as treatments for various health conditions and 7% as sports supplements and electrolyte solutions.

Daily vitamin B6 intake based on recommended dosing ranged from 0.3 to 263 mg pyridoxine equivalent, which is 0.3- to 202-fold the recommended dietary intake (RDI) for men and women aged 19–50 years.[2]

Five sports supplements did not recommend a maximum daily dose. Products named as B-group vitamins had a significantly higher mean daily vitamin B6 dose than other product types ($P<0.001$, Student's t-test). Nevertheless, in all categories, the mean daily vitamin B6 dose exceeded 17 mg/day, and examples exceeding 82 mg/day pyridoxine equivalent were found (Figure 1).

Discussion

The Australian-recommended vitamin B6 upper daily limit for adults is 50 mg/day;[2] 10% of products were found to exceed this. The European limit is 12 mg/day;[1] 55% were found to exceed that. Ambiguous product naming increases the risk of toxicity: *Cenovis Magnesium* combined with *Thompson's Skin, Hair & Nails* and *Caruso's St John's Wort* give a cumulative dose of 135.1 mg pyridoxine daily despite none having B or multivitamin in the name. For sports supplements, a generally lower vitamin B6 content needs to be balanced against the use of multiple supplements across a single session or multiple sessions of training. The Therapeutic Goods Administration requires products with >10 mg/day of vitamin B6 to include a paraesthesia warning, but labelling in pyridoxine-equivalent mg amounts does not provide a sense of proportion to an average person and does not address multiple-product use.

For more information, refer to the case study about pyridoxine toxicity from over-the-counter supplements in this issue of *AJGP*.[3]

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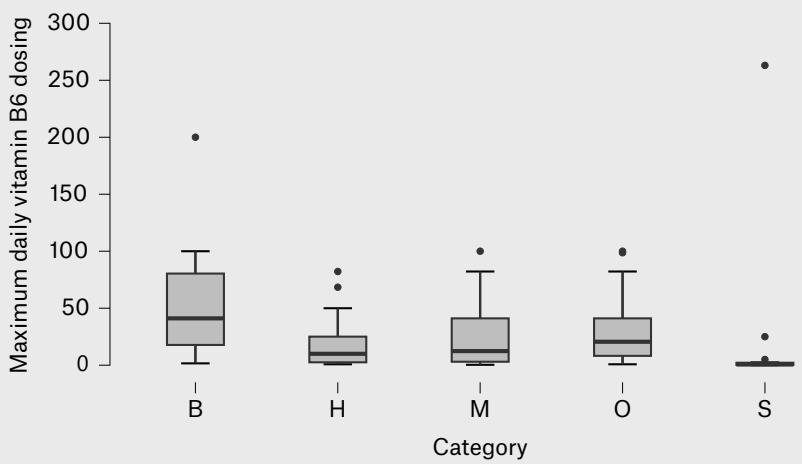

Figure 1. Daily intake of pyridoxine by type of product when taken as directed. Maximum daily vitamin B6 dosing shown as pyridoxine equivalent in mg/day when taken according to the manufacturer's instructions.

B, B-group vitamins; H, for specified health conditions; M, multivitamins; O, other (non-B) vitamins and minerals; S, sports supplements.