

(endocarditis), periungual fibromas (tuberosa sclerosis), nail fold telangiectasia (dermatomyositis), clubbing, koilonychia (iron deficiency), and yellow nails (benign pleural effusion) to give but a few examples.

Every dermatologist has the experience of being called to the medical or surgical wards to find important physical signs in the skin that had been overlooked and which lead the correct diagnosis of a puzzling clinical presentation.

A brief but systematic examination of the skin from the top of the head (syphilitic alopecia) to the tip of the toe (subungual malignant melanoma) is, in these cost-conscious days, inexpensive but often highly rewarding. It should not be neglected. ■

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## Reference

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## A 68-year-old with cranial nerve neuropathies and a troponin rise

We read with interest the case report by Bennett and Iqbal describing a patient thought to have takotsubo cardiomyopathy (TC) induced by varicella zoster viral encephalitis.<sup>1</sup> Unfortunately, cardiac magnetic resonance imaging (CMR) had not been available to the authors in the acute setting.

Have the authors considered utilising CMR for patient follow up? CMR represents the 'gold standard' imaging modality for the assessment of ventricular size and function. In addition, it would be important in this case to assess left ventricular late gadolinium enhancement (LGE).

The presence of LGE confers a poorer prognosis in both ischaemic and non-ischaemic cardiomyopathies,<sup>2</sup> and, in patients with TC, LGE is associated with an increased frequency of cardiogenic shock and increased duration to electrocardiographic normalisation.<sup>3</sup>

It would, therefore, be important to consider CMR not only for diagnostic purposes, but also as a risk-stratification tool, and to assess the patient's response to evidence-based heart failure therapy. ■

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## Varicella zoster encephalitis, cranial nerve neuropathies, and takotsubo syndrome: delving further into the pathogenesis

Editor – I read with great interest the communication by Bennett and Iqbal,<sup>1</sup> published in *Clinical Medicine*, about the 68-year-old woman with takotsubo syndrome (TTS) secondary to a varicella zoster encephalitis (VZE), and the arduous work of the authors in diagnosing and managing her evolving cranial nerve neuropathies (initially mononeuritis and subsequently polyneuritis), associated with rapid atrial fibrillation, and cardiac abnormalities. The rise in high sensitivity troponin was higher than expected for TTS, and making the distinction between TTS and acute coronary syndromes more difficult. The QRS voltage of the electrocardiogram (ECG) of Fig 1 is low,<sup>1</sup> in keeping with TTS,<sup>2</sup> and one wonders whether prior to the admission, ECGs, or ECGs from follow-up, showed higher QRS voltages. In reference to the pathophysiology of TTS, we are still far from delineating the underlying mechanism(s), but in cases like the one herein, checking for elevated blood-borne catecholamines,<sup>3</sup> or evaluating for evidence of enhanced cardiac autonomic sympathetic nervous system (CASNS) stimulation, norepinephrine-based, exerting cardiomyocyte injury,<sup>4</sup> are two promising injurious pathways, needing exploration. Indeed, current commercially available technology<sup>5</sup> could provide monitoring of the CASNS function, via the chest electrodes used for ECG recordings, with analysis of filtered signals of 500 to 1,000 Hz from the skin of the thorax, reflecting activity of the stellate ganglia, and the sympathetic autonomic nerve input to the heart. ■

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- 5 Madias JE. A proposal for a noninvasive monitoring of sympathetic nerve activity in patients with takotsubo syndrome. *Med Hypotheses* 2017;109:97–101.

## Consultant recognition for accepting work experience students

In order to gain entry to a UK medical school it is almost obligatory that a candidate demonstrates evidence of work experience. Many

school students find work experience difficult to obtain. Some recall having to contact as many as 50 doctors, often with no response. Exposure to the workings of a hospital not only allows an appropriate student to obtain the credentials for shortlisting for interview but will also inform some that this is not the career path they had envisaged.

In our experience, 3 days provides a reasonable opportunity for observation and the chance to talk to a variety of allied health providers including nurses, technicians, physician associates, junior doctors and medical students.

The Royal College of Physicians (RCP) have recently indicated a wish to recognise the contribution of consultants to the education of current medical students. We would argue that facilitating the selection of appropriate students to enter medicine is equally important.

There is no obligation for consultants to perform this role, the rewards being philanthropic. Recognition by the RCP would encourage other consultants to participate and would help inform the next generation of potential medical students. ■

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## Response

The RCP very much recognises the value of the medical educator, often not reflected in a job plan. Consultants do undertake this activity as part of our professional role at undergraduate and postgraduate levels and provide educational and work experience for school children and other students. In my experience it is common practice for trusts to have widening participation officers / work experience coordinators to facilitate ease of access for aspiring medics. This adheres to the widening participation agenda. Consultants generally are cooperative and happy to help and don't expect a reward, as is the case with other members of staff. However, we are exploring how more formal recognition of the educator role may be augmented. ■

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## Not only what investigations? When, why, at what cost, whose choice?

Editor - Regarding the recent publication in *Clinical Medicine* by Vasudevan and Suri,<sup>1</sup> I was pleased to see the subject but very disappointed in this article. As a member of the Royal College of Physicians and Royal College of Paediatrics and Child Health, I felt very saddened that neither a paediatrician nor a service user contributed to this article. There is imprecision in the definition of terms, leaving out important criteria such as how delayed is 'significant' in global developmental delay (GDD); it is usually defined as >2 standard deviations below the mean.<sup>2-4</sup> In addition, GDD is referred to as if it is just intellectual disability (ID) in young children – except where DD is severe, the development of future intellectual disability is uncertain.

The World Health Organization's definition of mental retardation and the Department of Health (DH) definition of learning disability are clearer: they include mention of IQ (<70) and degrees of disability that also relate to the likelihood of finding a cause. The DH definition of learning disability is misquoted (by partial omission) and the reference to it leaves out the important distinction therein between general and specific learning disabilities (eg dyslexia).<sup>6</sup> There is little reference to the evidence base informing practice or to patients' views.

No mention is made of the ethical and practical considerations of testing and of obtaining valid consent, nor of the considerable variation in guidance and practice in investigations for GDD and ID. These issues are mentioned for future developments such as whole-genome sequencing but are very relevant for current investigations.

Considerable distress can be caused by blood tests, waiting for results and the frequent occurrence of copy number variations of uncertain significance.<sup>8</sup> In my experience, parents' wishes vary: many want to investigate their child's disability exhaustively and immediately, most do not, and some want no investigations unless likely to have a significant impact on treatment such as thyroid function.

Microarray has not been routinely available for 2 decades – at least not from the Guy's and St Thomas' genetic department in London and I guess not many other places either. The recommendation of magnetic resonance spectroscopy as routine seems unjustified – there is evidence of little additional diagnostic yield. If properly audited, part of research projects would be more appropriate.

I do recognise that better investigations do identify a cause more commonly, and rarely but increasingly identify treatable conditions. Nonetheless, even a specific diagnosis most often does not help the individual very much if at all. The comment that a specific diagnosis enables access to special education and social care is sometimes true but is against the spirit and text of the relevant law, which for children at least has been based on identification of needs not diagnosis since the Education Act 1981, and the Children Act 1989.

Participation is key in working long term with patients and their families with significant learning difficulties. For children, parents usually give consent for their child. They may have very different priorities and concerns to the clinician. Respectful explanation of options, uncertainties, costs and benefits of investigations is vital for valid consent. This remains an art<sup>7</sup> and does not fit well with a mandatory list of investigations all at once for all.

Adults with ID may not be competent to give valid consent. Surely this should at least be mentioned, and references given to how to address this, both respecting the autonomy of the individual and not neglecting their health needs.

There are, coincidentally, far better recent articles, and discussions of the pros and cons of aetiological investigations for GDD and ID – see references 2–5 below, which of course do not totally agree with one another. ■

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## References

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