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AZEEM S SHEIKH
Specialist registrar in cardiology, Royal Glamorgan Hospital,
Ynysmaerdy, Llantrisant, Pontyclun, UK

KULA RANJAN
Consultant cardiologist,
Newham University Hospital NHS Trust, London, UK

Response

Editor – We read with great interest the letter from Gottschalk *et al*, and we would like to thank them for their interest in our review article. We are grateful to the authors for drawing our attention to the terminology ‘Brugada phenocopy’ (BrP) and their work on BrP.

Riera *et al*¹ introduced the term ‘Brugada phenocopy’ to describe the Brugada pattern that can be linked to a pre-existing and well-known condition. They chose this term based on a previous definition of phenocopy: ‘an environmental condition that imitates (copies) one produced by a gene’. The authors described a classic Brugada-type 1 ECG pattern in a patient intoxicated with propofol. In this particular case, the environmental condition was the infusion of propofol that triggered this particular ECG manifestation.

BrP are clinical entities that are etiologically distinct from true congenital BrS. BrP are defined by ECG patterns that are identical to BrS but are elicited by various clinical circumstances.

There are few key features that helps in distinguishing between BrP and the true congenital BrS.² First, patients with BrP have a reversible underlying condition, such as adrenal insufficiency, hypokalemia or myocardial ischemia, that elicits or induces the Brugada ECG pattern. There is prompt normalisation of the ECG once this underlying condition is resolved. This is contrary to true congenital BrS where the ECG manifestations are unmasked by sodium channel blockers, vagotonic agents, febrile states and various metabolic conditions. Second, patients with BrP have a low clinical pretest probability of true congenital BrS, as opposed to a high clinical pretest probability in patients with true congenital BrS who have a documented personal history of cardiac arrest, non-vagal syncope or a family history of sudden cardiac death.³ Third, patients with BrP have a negative provocative challenge with a sodium channel blocker, while those with true congenital BrS have a positive provocative challenge.²

Gottschalk *et al* recently developed a morphological classification system which divides BrP into type-1 and type-2 BrP according to the manifested ECG pattern. The type-1 BrP is identical to a coved or type-1 Brugada ECG pattern and the type-2 BrP is identical to a saddleback or type-2 Brugada ECG pattern.^{4–6} These two categories include A, B, and C qualifiers. Class A includes BrP that have met all mandatory diagnostic criteria, including negative provocative challenge with a sodium channel blocker. Class B includes highly suspected BrP; however, not all mandatory diagnostic criteria are complete. Class C includes highly suspected BrP; however, provocative testing is not justified, such as in cases with recent surgical right ventricular outflow tract manipulation⁷ or BrP secondary to inappropriate ECG high pass filters.⁸ The systematic diagnostic criteria discussed needs to be applied for suspected cases of BrP.

We agree with the authors that the term ‘Brugada phenocopy’ should be used to replace ‘Brugada-like ECG pattern’ in the absence of true Brugada syndrome, in order to achieve consistency in the literature. ■

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A new kid on the block: the role of physician associates

Editor – You have previously highlighted the potential benefits of the deployment of physician associates (PAs) to emergency departments in the UK (*Clin Med* 2014;3:219–20). Tamara Ritsema subsequently elaborated on the scope of practice of PAs working in UK emergency departments from a national perspective. (*Clin Med* 2014;6:691–4). To expand on this further, I offer a brief case study of PAs working in a UK emergency department.

In July 2011, a district general hospital in the West Midlands recruited three UK-trained PAs to join a US-trained PA already working in emergency medicine. The Trust has two acute hospital sites, each with an emergency department and two PAs were placed in each of these. On one site the PAs were part of the junior doctor rota, taking gaps that would have been filled by locum doctors, while at the second site they had a separate rota. Each had a designated consultant acting as an educational supervisor and on a day-to-day basis worked under the supervision of the consultant and registrars in the department.

All four PAs could work across the departments, seeing undifferentiated patients presenting to ‘minors’, ‘majors’, ‘paediatrics’ and ‘resuscitation’, taking patient histories, undertaking physical examination, ordering and interpreting diagnostic tests and procedures, formulating a diagnosis and initiating management, or referring to speciality as

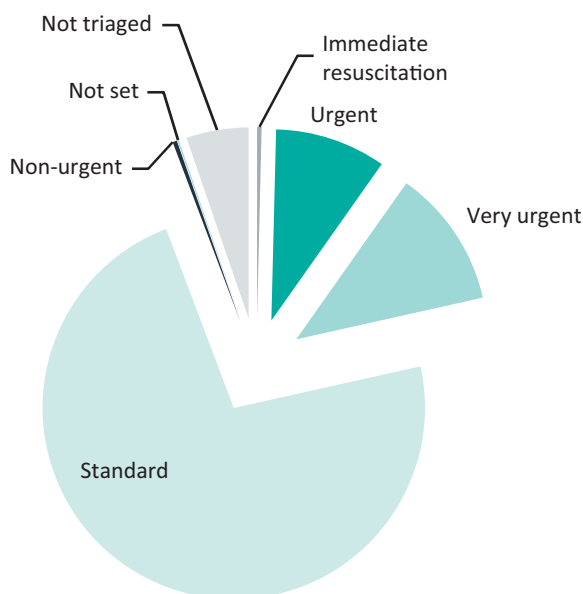


Fig 1. Triage categories of patients seen by physician associates.

required. They employed a range of diagnostic and therapeutic procedures, some of which PAs have from graduation (for example suturing, venepuncture and cannulation), to more complex procedures (such as digital ring blocks and chest drain insertion).

During the 12-month period between September 2011 and August 2012, the four PAs saw a total of 7,133 patients.¹ The triage categories of these patients varied from five (least urgent) to one (most urgent) (Fig 1), and this is reflected by the types of presenting complaints that these patients booked in with, which are specified by the Department of Health as those which a PA should be able to assess from graduation.² These included chest pain, shortness of breath, collapse and a variety of minor illness and injury. A more precise breakdown of the specific conditions seen is presented in Table 1.

This case study demonstrates that PAs working in emergency departments are utilising the generalist nature of their training by seeing a wide, undifferentiated caseload of patients that present with a variety of medical and surgical conditions. This is making a dynamic and valuable contribution to service provision at a time when it is becoming increasingly difficult to recruit staff to emergency medicine. ■

NEIL HOWIE

Physician associate, lecturer and admissions tutor,
Physician Associate Programme, University of Worcester, UK

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Table 1. Diagnosed conditions of patients seen by physician associates.

Presentation type	Number of presentations
Abdominal and pelvic injury	32
Addiction	13
Abdominal pain	253
Allergic reaction	15
Altered sensation	3
Anxiety	4
Back pain	108
Breast problems	5
Chest pain	368
Circulatory abnormalities	18
Collapse (including fits)	71
Cough	4
Cutaneous/subcutaneous swelling	88
Diabetes	14
Disordered thinking	4
ENT emergencies	17
ENT problems	73
Extremities injury	1,393
Eye	114
Falls and faints	80
Fever	1
Generally unwell	228
General medical problem	1,144
GI disturbances	58
Headache	56
Head and neck injury	257
Joint pain/swelling	103
Menstrual changes/problems	127
Micturition problems	49
Movement	4
NAD	40
Observation	301
Overdose and poisoning	8
Postoperative wound problems	45
Pregnancy problems	133
Scrotal and groin swelling pain	7
Shortness of breath	111
Skin changes	109
Thoracic injury	44
Unknown	1,081
Unwell child	24
Unspecified injury	520
Visual disturbances	3
Worried parent	3
Total	7,133