Parkinson's tremor mimicking torsades de pointes

A 72-year-old woman with Parkinson's disease presented to outpatients with a history of falls. The falls were not associated with loss of consciousness, and the history suggested gait and balance problems leading to falls. A 12-lead electrocardiogram, as shown in *Figure 1*, had the appearance of torsades de pointes. However, the patient was cardiologically asymptomatic, and the electrocardiogram appearance was thought to be caused by a Parkinson's disease-associated artefact.

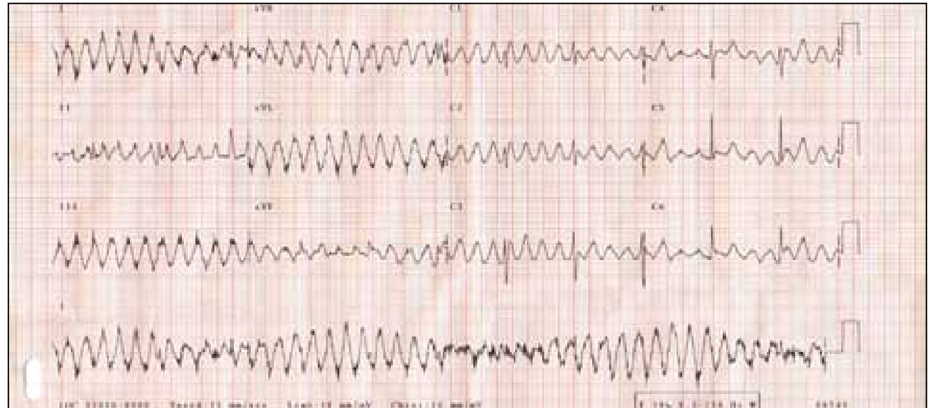
The tremor of Parkinson's disease is known to induce electrocardiogram artefacts resembling cardiac arrhythmias. The clinical consequences of misdiagnosing electrocardiogram artefacts ranged from the delivery of a precordial thump, administration of anti-arrhythmics, diagnostic cardiac catheterization, and even placement of an implantable cardioverter-defibrillator (Bhatia and Turner, 2005). Possible methods of clarifying the diagnosis in an asymptomatic patient include careful review of the relationship of movement to the electrocardiogram recording and the presence of normal QRS complexes within the artefact (Knight et al, 1999). BJHM

Dr Indunil Gunawardena *is Geriatric and General Internal Medicine Specialist Registrar, Royal Bournemouth Hospital, Bournemouth, Dorset BH7 7DW (indunil.gunawardena@nhs.net)*

Bhatia L, Turner DR (2005) Parkinson's tremor mimicking ventricular tachycardia. *Age Ageing* **34:** 410–11

Knight BP, Pelosi F, Michaud GF et al (1999) Clinical consequences of electrocardiographic artifact mimicking ventricular tachycardia. *N Engl J Med* **341:** 1270–4

Figure 1. Electrocardiogram artefact mimicking torsades de pointes.



Paraganglioma mimicking adrenal incidentaloma

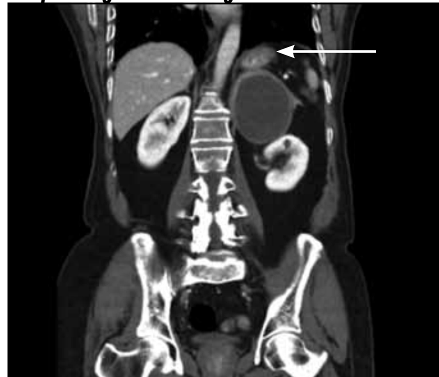
Paragangliomas can be confused with adrenal incidentalomas because of their proximity to the adrenal glands. A 71-year-old man presented with left-sided abdominal pain. A computed tomography scan showed a large cystic mass with a solid component arising from the left adrenal gland (*Figure 1*). Percutaneous biopsy of the solid element demonstrated normal adrenal tissue. Serum endocrine profiles were within normal ranges. A laparotomy was performed and the cystic lesion was shelled out (*Figure 2*). The left adrenal gland was excised. Immunohistochemically the tumour was a paraganglioma, The tumour cells showed positive staining for chromogranin, synaptophysin, NSE and S100.

Usually extra-adrenal paragangliomas are asymptomatic but occasionally they may present with symptoms of sympathomimetic overactivity such as hypertension, tremor and hyperhidrosis (Noda et al, 2008). These tumours usually arise from coeliac, superior and inferior mesenteric ganglia and are closely related to the aorta (Bhatt et al, 2007). Surgical excision may result in correct diagnosis and cure. BJHM

Mr Rajaraman Durai *is Specialist Registrar,* **Dr Farihah Husain** *is Medical Student,* **Mr Vernon Sivarajah** *is Core Trainee,* **Miss Tayo Oke** *is Consultant Surgeon and* **Mr Midhat Siddiqui** *is Consultant Surgeon in the Department of Surgery, Queen Elizabeth Hospital, London SE18 4QH*

Correspondence to: Mr M Siddiqui (midhat.siddiqui@nhs.net)

Figure 1. Coronal section of computed tomography scan of abdomen showing paraganglioma compressing the adrenal gland.



Bhatt S, Vanderlinde S, Farag R, Dogra VS (2007) Pararectal paraganglioma. *Br J Radiol* **80**: e253–6

Noda E, Ishikawa T, Maeda K et al (2008) Laparoscopic resection of periadrenal paraganglioma: a report of 2 cases. *Surg Laparosc Endosc Percutan Tech* **18**: 310–14

Figure 2. Left extra-adrenal paraganglioma that was excised from the patient.