"Vascular Mania"- A Case Series

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Background

"Vascular mania", is a theory akin to those of vascular depression and vascular dementia. It proposes an organic basis for an affective disorder. Such cases present with a late age of onset of mania/hypomania (> 50 years old) combined with neuroimaging or neuropsychological evidence of cerebrovascular disease (table 1). The aetiological contribution of ischaemia, whether macrovascular or microvascular, to late onset mania remains uncertain given the lack of a clear association between the temporality and anatomical location of ischaemic damage and the development of mood disorder. However technological development within MRI imaging acquisition and analysis in recent years, such as diffusion tensor imaging and tractography have supported the concept that ischaemic damage to critical neural connections may underlie the development of late onset mania.

Here we describe three recent cases presenting to our service with late onset mania and neuroimaging evidence of microvascular ischaemia, and discuss the implications of these presentations for the concept of vascular mania and the issue of secondary prevention.

Table 1. Diagnostic criteria for Vascular Depression/Mania (adapted from Steffans and Krishnan)

Criterion A and at least one of B1, B2 or B3:

- **A. Major depression/mania occurring in the context of clinical and/or neuroimaging evidence of cerebrovascular disease or neuropsychological impairment.**
- **B1. Clinical manifestations may include history of stroke or transient ischemic attacks, or focal neurologic signs or symptoms (e.g. exaggeration of deep tendon reflexes. extensor plantar response. pseudobulbar palsy, gait disturbance, weakness of an extremity).**
- **B2. Neuroimaging findings may include white or grey matter hyperintensities, confluent white matter lesions, or cortical or subcortical infarcts.**
- **B3. Cognitive impairment manifested by disturbance of executive function (e.g., planning, organizing, sequencing, abstracting), memory, or speed of processing of information.**

The diagnosis is supported by the following features:

- **1) Mood episode onset after 50 years of age or change in the course of affective disorder after the onset of vascular disease in patients with onset before 50 years of age.**
- **2) Lack of family history of mood disorders.**
- **3) Marked disability in instrumental or self-maintenance activities of daily living**

Key Messages

-When encountering atypical presentations of mania, specifically onset over 50 years of age and lacking typical risk factors, it is important for clinicians to consider vascular aetiology and undertake the appropriate investigations.

-Management of these cases should go beyond solely managing the psychiatric symptoms. Secondary prevention should be prioritised through aggressive management of identified cardiovascular risk factors to limit the progression of cerebrovascular disease, thus limiting further cardiovascular morbidity in this group.

Case A

Ms A experienced her first manic episode age 65. She presented with a ten week history of sleep disturbance, hyperactivity, rapid speech, flight of ideas and paranoid and grandiose delusions. She had a history of a single depressive episode one year previously. She responded well to sodium valproate and is now in full time nursing home care due to cognitive decline.

Case B

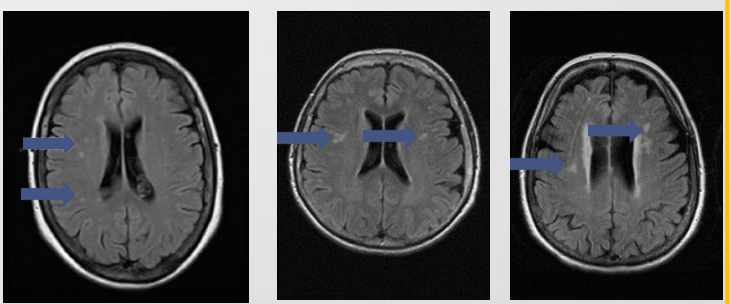
Ms B had her first manic episode age 61. She had a three month history of pronounced paranoid delusions including one of her neighbours being involved in a "paedophile ring". This resulted in marked behavioural disturbance resulting in Garda attention. There were also symptoms of pressure of speech with tangential thinking, excessive spending, subjective elation, excess energy and grandiosity.
Ms B had four previous depressive episodes since the age of 35. She responded well to sodium valproate and is now doing well, living independently.

Case C

Ms C experienced her first manic episode at the age of 57. She presented with a several week history of overfamiliarity, rapid speech, flight of ideas, irritability and subjective elation with a labile affect.
She had a history of Recurrent Depressive Disorder since the age of 54. She responded well to olanzapine therapy and now lives independently.

Summary of Risk Factors	Ms A	Ms B	Ms C
Regular cigarette use	X		X
Dyslipidaemia (LDL > 3.0mmol/l / Trig > 2.0mmol/l)		X	X
First degree relative with Coronary Heart Disease	X	X	
Insulin resistance (fasting glucose >5.6mmol/l)		X	
Hypertension	X		X
Obesity (BMI >30)			
Family History of SMI	Yes	No	No

MRI Imaging



Ms A Ms B Ms C