Avon and Wiltshire NHS
Mental Health Partnership NHS Trust

Blood Pressure and Dementia

Dementia is a chronic, progressive and irreversible condition characterised by cognitive, behavioural and motor dysfunction. However, the associated autonomic dysfunction is often overlooked.

The relationship between blood pressure and dementia is bidirectional; both low and high blood pressure can be contributors to the disease onset. However, as hypertension is a well documented risk factor for both Vascular and Alzheimer's dementia, patients are often appropriately commenced on antihypertensives at an early stage, as part of secondary prevention. However as the dementia progresses the needs for antihypertensives often changes.

The problem occurs when advancing dementia causes autonomic dysregulation, resulting in a subsequent fall in blood pressure[1]. This is found to be the case in as many as 62% of people with lewy body dementia and those with Alzheimer's dementia are also known to be affected[3]. The continuation of long term antihypertensives, in this group of patients, puts them at risk of symptomatic hypotension.

Orthostatic hypotension (OH) is defined as;

'A drop in systolic blood pressure of >20 mm Hg and/or a drop in diastolic BP of >10 mm Hg within 3 minutes of standing from sitting'[3]

The incidence of orthostatic hypotension and persistently low blood pressure is reported to be 39-52% in people with organic dementia[2]. This is higher than that of other residents whom do not have a diagnosis of dementia[4].

This has clinical significance for doctors and care staff. The frequency of medication reviews should reflect the severity of disease progression. Continuation of antihypertensive medication(s) can have detrimental effects; untreated 'OH' is found to increase the risk of falls by as much as 50%.[2]

The progressive nature of dementia is testament to the need for judicious prescribing of antihypertensives and regular medication reviews in this susceptible group of residents, by GPs, non medical prescribers (NMPs) and care home staff.

When to suspect orthostatic hypotension ('OH');

1) Dizziness/light headedness on standing
2) Unexplained falls
3) Transient loss of consciousness
4) Polypharmacy – especially . diuretics and antihypertensives
5) Co-morbidities such as Benign Prostatic Hypertrophy (BPH) as they may be taking alpha blockers (Tamsulosin or Doxazosin).
6) Patients with dementia on antihypertensives- have a low index of suspicion!

References

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