

Not as transient as the name suggests: fatigue, psychological and cognitive impairment following transient ischemic attack (TIA).

CONTEXT: Transient ischemic attack (TIA) is defined by short-lasting, stroke-like symptoms and treatment is focused on secondary stroke prevention. However, a recent systematic review suggested that TIA patients may experience ongoing residual impairments. TIA patients are followed up in primary care; therefore, it is important for family practitioners to understand the holistic consequences of TIA.

OBJECTIVES: To investigate whether TIA is associated with subsequent consultation for fatigue, psychological or cognitive impairment in primary care.

DESIGN: A retrospective cohort study of first-ever TIA patients and matched controls using anonymised electronic primary care medical records from The Health Improvement Network (THIN), a primary care database.

SETTING: Family practices in the United Kingdom providing data to THIN.

PATIENTS: 10,692 stroke-free patients who experienced a first-ever TIA between 2000 and 2013 were matched (approximately 1:5) to 52,772 stroke-free controls by age (+/- 2 years), sex and family practice.

OUTCOME MEASURES: Follow up was censored at date of death, stroke or leaving the database. Outcomes were the first consultation for fatigue, psychological or cognitive impairments. Kaplan-Meier (K-M) survivor functions estimated time to first consultation with log-rank tests to compare TIA and control patients.

RESULTS: There was a statistically significant difference ($P < 0.0001$) in K-M curves between TIA and control patients for all three impairments.

Within 7.1 months (95% CI 6.2 to 8.2), 25% of TIA patients consulted for psychological impairment compared to 23.5 months (95% CI 22.5 to 24.6) for controls. Hazard ratios for TIA patients were 1.43 (95% CI 1.33 to 1.54) for consulting for fatigue, 1.26 (95% CI 1.20 to 1.31) for psychological impairment and 1.45 (95% CI 1.28 to 1.65) for cognitive impairment.

CONCLUSIONS: The findings suggest that TIA may be more than a transient event and that these patients may experience long-term impairments which could require intervention.

Residual impairments are likely to present in primary care; therefore, family practitioners may need to consider more than just secondary stroke prevention when treating TIA patients.

Missed opportunities for primary prevention of stroke and transient ischaemic attack (TIA) in primary care

CONTEXT: Stroke is one of the leading causes of death and disability globally; approximately 16.9 million first-strokes occur each year. Primary prevention through targeting modifiable risk factors is important to reduce the burden of stroke. However, evidence suggests that primary stroke prevention is sub-optimal in primary care.

OBJECTIVES: To investigate the proportion of strokes/TIAs with prior missed opportunities for prevention in primary care.

DESIGN: Retrospective analysis of anonymised electronic primary care medical records from The Health Improvement Network (THIN), a primary care database.

SETTING: 561 family practices in the United Kingdom providing data to THIN.

PATIENTS: 29,043 first-ever stroke/TIA patients between 2009 and 2013, aged over 18 years.

OUTCOME MEASURES: Missed opportunities were defined as: untreated high blood pressure in patients eligible for treatment (either blood pressure $\geq 160/100$ mmHg or $\geq 140/90$ mmHg in patients at high cardiovascular disease (CVD) risk); atrial fibrillation

patients with high stroke risk and no anticoagulant drugs prescribed; no lipid-lowering drugs prescribed in patients at high CVD risk or with familial hypercholesterolaemia.

RESULTS: Approximately half of eligible stroke/TIA patients were not prescribed anticoagulant drugs (52%; 1,647/3,194) or lipid-lowering drugs (48%; 7,836/16,028) and a quarter not prescribed antihypertensive drugs (26%; 540/2,038). There was no improvement in the proportion of missed opportunities between 2009 and 2013, with the exception of anticoagulant prescribing. Different patient/demographic characteristics were associated with having a missed opportunity for each type of prevention drug.

CONCLUSIONS: A substantial number of strokes/TIAs had prior missed opportunities for prevention. Previous studies have found that the absolute numbers of strokes has increased in the past two decades; therefore, improving prevention drug prescribing should be a priority for clinicians and policy makers. Knowledge of patient characteristics predictive of having a missed opportunity may highlight those vulnerable to not being prescribed prevention therapy.