CASE REPORTS

Endovascular intervention for symptomatic bilateral carotid artery stenosis in an octogenarian

OMID HALSE, ANDREW CLIFTON, GEOFFREY C. CLOUD

Department of Clinical Neurosciences, Atkinson Morley Wing, St George’s Hospital, Blackshaw Road, London SW17 0QT, UK

Address correspondence to: G. C. Cloud. Tel: (+44) 208 725 2470. Fax: (+44) 208 725 3291. Email: g.cloud@sgul.ac.uk

Abstract

An 89-year-old man presented with two separate minor stroke episodes due to high grade bilateral carotid stenoses, which were successfully treated with endovascular angioplasty and stenting. The role of operative interventions for high grade symptomatic carotid stenosis in patients aged over 80 years is discussed.

Keywords: stroke, carotid artery stenosis, carotid stenting, elderly

Case Report

An 89-year-old, right-handed man presented with sudden onset of left arm weakness and numbness.

His known risk factors for cerebrovascular disease were treated: hypertension, coronary artery disease, hypercholesterolaemia and previous smoking history of 20 pack-years. On examination, he had mild pyramidal weakness and diminished sensation in his left arm.

Computerised tomography (CT) of his brain was normal. However, magnetic resonance imaging (MRI) of his brain demonstrated an acute infarct in the right corona radiata (Appendix 1 Available online at http://ageing.oxfordjournals.org). He was in sinus rhythm and transthoracic echocardiography was normal. Carotid Doppler demonstrated bilateral proximal stenosis of the internal carotid arteries (ICA) of more than 90% by velocities. Magnetic resonance angiography (MRA) confirmed this (Appendix 2 Available online at http://ageing.oxfordjournals.org). Significant functional recovery of the arm was observed within a week of admission.

At the 1-month review, there were no recurrent symptoms of right ICA territory cerebral ischaemia. There was no evidence of re-stenosis or impaired flow through lumen of the stent on ultrasound of the right ICA, while the left ICA stenosis remained unchanged.

Two months later, he presented with an episode of weakness and numbness of the right arm and mild dysphasia. Repeat MRI of his brain showed an acute left frontal sub-cortical infarct and persistent left proximal severe ICA stenosis, narrower than on the previous MRA. Again the patient recovered well. Treatment options (medical, CAS or CEA) concerning his now symptomatic left ICA stenosis were discussed with the patient. The patient elected for CAS, based on his recent experience (he could not be randomised again into ICSS). One month later, he underwent uncomplicated angioplasty and stenting of his left ICA stenosis (Figure 1).

At the 2-year follow-up, the patient remained asymptomatic. Ultrasound of the carotid arteries showed patent stents with no evidence of re-stenosis.

Discussion

Stroke is a major cause of preventable disability in an ageing population. Carotid stenosis is an important cause of stroke. CEA is an effective treatment for symptomatic carotid artery stenosis of 70–99%, with up to 20% absolute risk reduction of stroke at 2 years compared with optimal medical care [2]. This is in contrast to asymptomatic carotid artery stenosis.
Carotid stenting in the very elderly

Figure 1. Digital subtraction catheter angiography demonstrating successfully stented left ICA stenosis.

for which there is no seeming value in surgical intervention for patients aged over 75 years [3]. Most prospective and randomised trials have excluded patients older than 80 years. The risks of CEA in patients over the age of 75 years are thought to be related more to existing co-morbidities than to age itself, and several population/single centre studies have shown the value of CEA in those aged over 80 years [4, 5]. CAS is a promising new treatment for carotid stenosis [6] and has recently been shown to have similar results to that of CEA over short term follow-up [7]; however, there is some concern that CAS in octogenarians may be associated with adverse risk [8]. Another study has suggested that for patients in whom CEA is associated with an increased adverse risk, such as greatly increased age, CAS with the use of an emboli-protection device is comparable to CEA in the prevention of stroke and primary end points [9].

This case illustrates that carotid stenosis is a treatable condition in symptomatic patients of great age, and that age should not be a deterrent for appropriate investigation of patients presenting with carotid territory stroke symptoms. However, the safety, effectiveness and role of CAS in different patient groups, including the very elderly, requires clarification. Until then, patients, such as the case discussed here, are best treated by CEA or in randomised studies such as ICSS [10].

Key points
- Carotid stenosis is an important treatable cause of stroke.
- Symptomatic patients aged over 80 should be investigated and considered for operative intervention.
- Endovascular angioplasty and stenting is a new promising treatment and a possible alternative to carotid endarterectomy.

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Conflicts of interest
None declared.

Informed consent
The patient discussed in this report has given written consent for using details of his treatment for purposes of medical education, including publication in a scientific journal.

References
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Adult-onset Still’s disease in a patient over 80 years old successfully treated with low-dose methotrexate therapy

Miwa Kurasawa1, Kazuhiko Kotani2, Gotaro Kurasawa1, Kousuke Shida3, Shigeki Yamada4, Toshihiro Tago5

1 Department of Internal Medicine, Nishiagatsuma Welfare Hospital, Naganohara, Japan
2 Division of Health Administration and Promotion, Faculty of Medicine, Tottori University, Yonago, Japan
3 Department of Orthopaedics, Nishiagatsuma Welfare Hospital, Naganohara, Japan
4 Department of Pathology, Omiya Medical Centre, Jichi Medical University, Omiya, Japan
5 Department of Surgery, Nishiagatsuma Welfare Hospital, Naganohara, Japan

Address correspondence to: M. Kurasawa. Tel: (+81)-279-83-7111 Fax: (+81)-279-83-8032. Email: miwa-kr@zero.ad.jp

Abstract

We report on an 83-year-old Japanese woman with adult-onset Still’s disease (AOSD), with marked hypercytokinemia (serum levels of ferritin (Fer) and interleukin (IL)-18 were markedly high). On seeing older patients with fever of unknown origin (FUO), particularly Asians, AOSD should be considered. Reduced doses of oral prednisolone following intravenous methylprednisolone (mPSL) therapy caused a flare-up of AOSD and led to Pneumocystis carinii (Jerovec) pneumonia. Low-dose methotrexate (MTX) therapy was administered as a steroid-sparing agent with good response. Our case suggests that in very elderly people, as in younger patients, MTX is useful for controlling AOSD with marked hypercytokinemia, and avoiding corticosteroid-induced adverse effects.

Keywords: adult-onset Still’s disease, super-old patients, Japanese, hypercytokinaemia, pulse methylprednisolone, low-dose methotrexate, elderly

Introduction

Adult-onset Still’s disease (AOSD) is rare and has a bimodal age distribution in all ethnic groups with peaks at 15–25 and 36–46 years of age [1]. Onset in older people is very rare, and it has been described only occasionally in Japan, Europe and the USA [2–9]. Patients of Asian origin tend to be older for reasons that are not clear, and more than half of the reported cases older than 70 are Japanese [2, 3, 6–8]. Even in Japan, however, very few cases of initial onset of AOSD in old patients have been reported [6]. We describe an AOSD patient aged over 80 years with marked hypercytokinemia (HCK) and was administered methylprednisolone (mPSL) pulse therapy with methotrexate (MTX), who we believe is the oldest reported case treated with MTX.

Case presentation

An 83-year-old Japanese female complaining of appetite loss, sore throat, quotidian fever (max 39°C, peak in the