Management and Outcome of Cholesterol Embolus Identified in a Diabetic Retinopathy Screening Programme – A retrospective audit

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Introduction

We examined the incidence, management and outcomes of patients known to be at high cardiovascular risk, and to assess whether specialist referral to an ophthalmic medical clinic is worthwhile.

Methods

Patients in the East Birmingham area with cholesterol embolus who were identified on digital diabetic retinopathy screening over a three year period were referred to a specialist ophthalmic medicine clinic within Heart of England NHS Trust for management and investigation.

Results

33 patients were referred for clinical management. (Males: Females = 22:11, mean age 72 years). 3 did not attend. 30 patients were known to be receiving medication: 22 on antihypertensive therapy (73%), 23 on aspirin (77%) and 24 on statin (80%). After assessment of 30 attendees, 7 had medication change (23%). 15 patients had known cardiovascular disease, 11 of which had received carotid stenting or coronary artery bypass surgery. 17 patients diagnosed with embolus required and consented to carotid doppler studies/CT. 5 patients were confirmed with significant carotid stenosis and 2 (6%) of these patients required carotid endarterectomy surgery. Overall 4 patients died a mortality rate of 12% over 3 years.

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Conclusion

Annual diabetic retinopathy screening provides opportunistic identification of asymptomatic cholesterol emboli and provides an opportunity for review of medical management in the high risk patient group with appropriate identification and referral for carotid stenosis surgery. 11 patients were identified with sub optimal cardiovascular risk management – e.g. statin use.

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