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Eye Movement Problems Common Cause of Reading Difficulties in Stroke Patients

Visual problems can affect up to two thirds of stroke patients, but can sometimes go undetected if patients do not recognise them as an after-effect of the condition or if they are unable to communicate the problem to their medical team or families.

Research has often focused on visual field loss, caused by an interruption in the pathways that deliver an image from the eye to the brain for processing. Study led by scientists at Liverpool, however, has shown that damage to the nerve supply that controls eye movement is also a common problem after a stroke. Impaired eye movement can impact on the ability to follow a moving object or read words on a page.

Treatments include exercises to strengthen the eye muscles when looking at objects close to the face, as well as prisms that can be fitted to glasses to join double vision. The research highlights the need for developing stricter assessment methods to ensure vision problems are detected and appropriately identified as the after-effects of stroke as opposed to a symptom of old age.

Other vision problems include central vision loss, a complete loss of vision in one or both eyes, and 'higher' visual processing problems, in which the image is formed by the eye and transmitted to the brain, but cannot be interpreted properly.

Dr. Fiona Rowe, from the University's Directorate of Orthoptics and Vision Science, said: "If a stroke patient has vision problems it can impact on the rest of their rehabilitation in a variety of ways, including reading difficulties and moving around properly. It is vital that health care services are aware of the different vision problems that stroke patients can face and have clear guidelines on identifying where the condition originates, whether it is in the eye, brain or the connecting pathways".

"Quite often patients do not connect difficulties with reading with the after-effects of stroke and so they can be missed. It is important, therefore, that health workers ask the right questions of the patient in order to understand whether the condition is as result of a stroke or if the problem existed prior to this. We hope this new research will increase awareness of vision problems in stroke patients and encourage those affected by the condition to consult medics with any difficulties they experience."

The research will be presented at the UK Stroke Forum conference on 2 December and published in the International Journal of Stroke in the New Year.

Collaborators in the research include: Altnagelvin Hospitals HHS Trust; NHS Ayrshire and Arran; Royal United Hospitals Bath NHS Trust Sandwell and West Birmingham NHS Trust; East Lancashire Hospitals NHS Trust; Bury PCT; Derby Hospitals NHS Trust; Durham and Darlington Hospitals NHS Foundation Trust; Ipswich Hospital NHS Trust; Gloucestershire Hospitals NHS foundation Trust; St Helier General Hospital; United Lincolnshire Hospitals NHS Trust; Nottingham University Hospital NHS Trust; Oxford Radcliffe Hospitals NHS Trust; Salford Primary Care Trust; Sheffield Teaching Hospitals NHS Foundation Trust; Swindon and Marlborough NHS Trust; Taunton and Somerset NHS Trust; Warrington and Halton Hospitals NHS Foundation Trust; Wrightington, Wigan and Leigh NHS Trust.

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