Road to recovery

NEUROLOGY

A man presents to his GP following a traumatic brain injury asking when he can resume normal activities.

SIMON, a 32-year-old father of one, is a self-employed IT professional. He experienced a traumatic brain injury as a result of a motor vehicle accident three weeks ago. Simon and his wife present to their GP two weeks after discharge from hospital. He has been dizzy and tired, has poor concentration and is "feeling down".

History

According to the discharge summary, there was a three-minute loss of consciousness at the scene of the accident. His Glasgow Coma Scale was 9/15 on arrival at hospital, and there was CT evidence of bifrontal contusions and subarachnoid haemorrhage overlying the left frontal lobe.

Simon had post-traumatic amnesia of six days and was diagnosed as having experienced a moderately severe traumatic brain injury by his rehabilitation specialist. He was in hospital for one week.

Simon would like to know when his symptoms will resolve and when he can resume driving and return to work.

Examination

On examination, Simon responds appropriately to questions but is forgetful, with impaired concentration. He is also experiencing anosmia.

A positive left Hallpike's test is noted, indicating benign positional vertigo.

Brief cognitive screening with the Montreal Cognitive Assessment (MoCA) shows memory loss and language impairments, with a total score of 24/30.[1]

Simon is also found to have mild depression.[2]

Management

Simon is advised that after a moderately severe traumatic brain injury, most patients rapidly recover within 3-6 months, although some symptoms may persist longer.[3]

Anosmia is common after traumatic brain injury, and while improvement can occur up to 12 months after the injury, most patients will have some persisting deficit.[4]

Safety measures, such as installation of smoke alarms and monitoring of food storage, should therefore be considered.

Given the severity of his injury and persistent symptoms and cognitive impairment, the GP advises Simon not to drive for three months.

Benign paroxysmal positional vertigo is also a common finding following traumatic brain injury, occurring in up to 30% of patients after head injury. It usually responds well to the Epley manoeuvre, which is performed at the consultation.[7]

Simon is referred to the brain injury outpatient clinic for rehabilitation assessment and further management of his brain injury.

He is given a medical certificate for his work and referred for occupational therapy assessment to assist with graduated return to work.

The GP also refers Simon to a clinical psychologist for strategies to manage his mood disorder.

The severity of his injury suggests Simon may be eligible for support (in NSW) from the Lifetime Care Support Scheme.

Discussion

Severity markers and assessments indicate Simon has suffered a moderately severe traumatic brain injury, with mild cognitive impairment.[5]

Brief cognitive screens, such as MoCA and Addenbrooke's Cognitive Examination, can be helpful to determine which aspects of cognition have been affected.[6] A neuropsychological assessment is not essential but may be useful for more complicated patients.

Pre-injury levels of productivity, education and mood have been found to be predictive of eventual functional outcome, so it is helpful to assess these parameters early.

Following a traumatic brain injury, patients are assessed for suitability for driving according to the severity of their injury and persisting cognitive or physical deficits, with different considerations for private and commercial drivers. Referral to Aust-roads driving guidelines is useful for specific neurological disorders. A formal driving assessment with occupational therapy may be required.

Suitability for work return requires thorough assessment of the patient and the demands of their work, including specific considerations, such as driving commercial vehicles or challenging environments. Further referral to specialist services may be necessary. The time frame for return to work can vary significantly. Patients and employers need to be reassured that symptoms will improve, although there may be high-level symptoms that only become evident on return to work.

Different states in Australia have compensation schemes that may be able to offer advice, financial assistance and access to rehabilitation services.

Outcome

At three-month review, Simon's symptoms have significantly improved, although his anosmia persists. Progress cerebral imaging is not indicated because of his continued clinical improvement — both cognitively and physically. After three months, he is able to return to driving and part-time work in a less demanding role.

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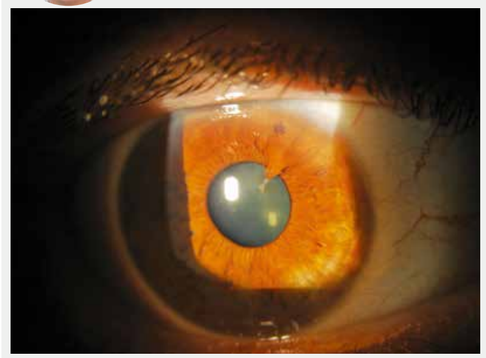
Send it to grandrounds @cirrusmedia.com.au Photos are encouraged.

Eye focus

Dr Weng Sehu



Suspicious strands

YOU notice this unusual appearance in a 53-year-old woman's left eye when conducting a dilated fundus examination as part of a routine check.

She is unaware of the lesion and has no visual symptoms or pain. She is otherwise well and does not take any medications.

She tells you her optometrist has reassured her about the lesion in the past.

Dr Sehu is a staff specialist at the Sydney Eye Hospital and St George Hospital, a lecturer at the University of Sydney, and he works in private practice in Sydney, NSW.

THE QUIZ

Q. The most likely diagnosis of this lesion is which of the following?

a. Scar tissue from previous trauma
b. Uveitis with secondary posterior synechiae
c. Persistent pupillary remnant
d. Accessory iris membrane
e. Xanthogranuloma

A. The answer is c. Persistent pupillary remnant is a painless, symptomless condition that occurs when remnants of a fetal membrane persist as strands over the pupil.

This is the most likely diagnosis because there is no history of previous trauma, no associated pain or conjunctival hyperaemia (as seen with uveitis), and no virtual second pseudopupil aperture (as seen with an accessory iris membrane.

Xanthogranulomas usually appear as yellowish masses over the iris, associated with skin lesions in very young children.

Q. The origin of this condition is the incomplete regression of the tunica vasculosa lentis, which normally involutes by six months' gestation. True or false?

A. The answer is true.

Q. With regard to persistent pupillary remnants, which of the following are correct?

a. Most undergo atrophy and require no treatment
b. Commonly associated with cataracts
c. Usually small and do not affect vision
d. Associated with a high risk of vitreal haemorrhage
e. May be attached to the lens or cornea

A. The answers are a, c and e.

Q. What would the recommended management of this patient include?

a. Six-monthly review by an ophthalmologist to monitor for thickening of remnant
b. Referral for laser therapy to treat remnant
c. Mydriatic drops to accelerate resolution of remnant
d. Reassurance that no treatment is necessary
e. Family screening for the condition because it has a strong familial predisposition

A. The answer is d.

Eve.

Eve

App of the Week

THIS is a very slick, modern app for comprehensively managing a young woman's sexual health.

Not only will this app allow women to keep track of their menstrual cycle, ovulation dates and record their sexual activity, they can also easily document emotions, exercise, libido, hormonal symptoms and menstrual flow (which can be rated as light, medium, heavy or 'crime scene').

In addition, the user can also discuss a range of female-related issues by accessing a community of more than a million young women, which appears to be populated with set questions and very sensible and sound replies, while also allowing for comments and further questions. All in all, not a bad app to recommend to female patients.

Specifications

COST: Free
COMPATIBLE WITH: Both Apple and Android devices
REQUIRES: iOS 8.0 or later or Android 4.0 and up