Losing sight under pressure

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Abstract

A non-communicative patient with vascular dementia who was admitted to hospital with non-specific symptoms. Ophthalmic emergencies are rare, however they should be considered as part of a systemic work-up in unexplained non-specific presentations, particularly in patients who are not able to communicate as in the case we present here.

Keywords: dementia, acute glaucoma, sight loss

Case report

An elderly nursing home resident with vascular dementia was admitted to hospital with vomiting, drowsiness, irritability and anorexia. She was treated with antibiotics for a suspected urinary tract infection (UTI) prior to being discharged. Over the next 2 weeks, she was readmitted twice with identical symptoms. During her third admission in which she was being treated for *E. coli* urosepsis, an opinion from ophthalmology was requested as the patient was noted to have a right red eye and dilated pupil.

As the patient was uncooperative, she was examined by the ophthalmologist at the bed-side. Detailed examination of the patient’s anterior chamber and retina was difficult due to non-compliance, her intra-ocular pressure (IOP) in her right eye using a rebound tonometer was measured at 38 mmHg (ref range: 10–21 mmHg), it was injected, the cornea hazy and the pupil fixed and dilated. Her actions suggested poor vision and she continually pressed her right brow. A diagnosis of acute angle-closure glaucoma (AACG) was made. The patient lacked capacity regarding her care. In her best interest, she was prescribed oral and intravenous acetazolamide which she refused to take in either form. Ocular antihypertensives, anti-inflammatory and miotic eyedrops were prescribed. Treatment became progressively more difficult to administer and following discussion with her family she underwent cataract extraction, lens implantation and peripheral iris iridectomy under general anaesthetic. At the time of surgery, the diagnosis of AACG was confirmed and her right IOP was measured at 72 mmHg.

Postoperatively her vision appeared to have improved, her vomiting stopped and her food intake improved. Her eye was no longer red and her IOP was measured postoperatively as 12 mmHg. She was prescribed pilocarpine to the left eye at night to prevent a similar occurrence in this eye.

Discussion

Pain assessment is difficult in patients with limited communication. Although a red eye had been noted by the attending physician, this was not thought initially to be associated with the presenting symptoms of vomiting, drowsiness, irritability and anorexia.

AACG usually presents with the cardinal symptoms of a painful red eye with visual loss. It is frequently associated with nausea and or vomiting, and severe brow pain above the affected eye. Usually patients will communicate the severity of their pain and loss of vision, however, in this case our patient was unable to communicate either of these. All her symptoms could be attributed to her ophthalmic pathology and the frequent touching of the brow was an indicator of her pain, her vision was apparently
limited and reported by her daughter to have recently declined.

Age-related cataract reduces the aqueous drainage angle of the eye; surgical removal of the cataract deepens the anterior chamber, opens the angles, reduces IOP and prevents AACG recurrence. Cataract extraction was the definitive treatment choice in this scenario.

Asymptomatic bacteriuria is widely recognised and often does not need treating. UTI is often over diagnosed in elderly patients on the basis of a questionable positive urine dipstick. Despite a positive urine dipstick, pre-operative urine culture was negative.

AACG is rare (3.6 cases per 100,000) but is more frequent in females and increases with age. Although a rare cause of vomiting and anorexia, it is important to consider an ophthalmic cause for systemic upset. Guidelines on appropriate signs and symptoms to enable detection and interpretation of behaviour in response to pain in even the most severely affected dementia patients exist and are an aid to identifying the severity and site of pain.

The importance of the attending physician or geriatrician is to ensure complete and comprehensive assessment of all systems to ensure underlying medical aberrancies are identified and treated. Often this involves simple, common pathologies, however, occasionally more unusual presentations will surprise and vigilance is required. Our patient’s case should encourage ophthalmic examination in non-communicative patients with systemic upset.

Key points

- Diagnosis of UTI is based on clinical findings (symptoms), not just on urine culture.
- Delirium has many causes, not just UTI.
- Severe dementia can lead to difficulty in ascertaining vital symptoms.
- Acute glaucoma is an ophthalmic emergency.

References


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