

Figure 1. Right retro-orbital hematoma with proptosis (arrow).

immediate canthotomy and cantholysis to reduce intraorbital pressure. Immediate improvements in visual acuity and papillary light responses were observed. Intravenous and then oral acetazolamide were used to further reduce intraorbital pressure. Subsequent treatment included a topical lubricant, topical chloramphenicol, and oral co-amoxiclay for 7 days. Her visual acuity returned to baseline.

## **DISCUSSION**

Retro-orbital hematoma is a sight-threatening condition.<sup>1</sup> Older adults may already have established impairment of visual acuity in one or both eyes. Further visual loss may be catastrophic in terms of functional impairment and loss of independence. Animal models have suggested that irreversible visual loss may occur after 100 minutes.<sup>2</sup> The etiology of reduced visual acuity includes direct optic nerve compression, central retinal artery ischemia, and compression of optic nerve venous drainage.<sup>3,4</sup>

The presence of ophthalmoplegia, an afferent pupillary defect, subconjunctival hemorrhage, and proptosis should raise suspicion of retro-orbital hematoma, especially in the context of trauma or abnormal clotting. Canthotomy and cantholysis are recommended as first-line treatment and reverse the threat of visual loss.<sup>5</sup> Canthotomy involves incision of the lateral canthal tendon. Further disinsertion of the inferior crus of the lateral canthal tendon is referred to as cantholysis. The procedure can be performed quickly under local anesthesia. Only a small amount of blood may be expelled. The subsequent orbital decompression facilitates recovery of normal orbital circulation and restoration of visual acuity. The wound is usually left to heal by secondary intention. The use of acetazolamide may be used as an adjunct to "medically" reduce intra-orbital pressure further.6

This case highlights a complication arising from a situation familiar to all physicians caring for older adults: a traumatic fall in an anticoagulated patient. Recognition of retro-orbital hematoma formation is essential if irreversible visual loss is to be avoided.

Mark Scott, MB ChB Alexander Thomson, MRCP Department of Elderly Medicine Salford Royal Hospital Salford, United Kingdom

## **ACKNOWLEDGMENTS**

Conflict of Interest: The editor in chief has reviewed the conflict of interest checklist provided by the authors and has determined that the authors have no financial or any other kind of personal conflicts with this letter.

Author Contributions: MS and AT managed the patient during her hospital stay and wrote the case report.

Sponsor's Role: None.

## REFERENCES

- 1. Vassallo S, Hartstein M, Howard D et al. Traumatic retrobulbar hemorrhage: Emergent decompression by lateral canthotomy and cantholysis. J Emerg Med 2002;22:251-256.
- 2. Hayreh SS, Kolder HE, Weingeist TA. Central retinal artery occlusion and retinal tolerance time. Ophthalmology 1980;87:75-78.
- 3. McInnes G, Howes DW. Lateral canthotomy and cantholysis: A simple, visionsaving procedure. Can J Emerg Med 2002;4:49-52.
- 4. Dolman PJ, Glazer LC, Harris GJ et al. Mechanisms of visual loss in severe proptosis. Ophthal Plast Reconstr Surg 1991;7:256-260.
- 5. Goodall KL, Brahma A, Bates A et al. Lateral canthotomy and inferior cantholysis: An effective method of urgent orbital decompression for sight threatening acute retrobulbar haemorrhage. Injury 1999;30:485-490.
- 6. Lee KYC, Fong K. Visual recovery following emergent orbital decompression in traumatic retrobulbar haemorrhage. Ann Acad Med Singapore 2006;35: 831-832

## INFECTION CONTROL IN LONG-TERM CARE FACILITIES: THE NEED FOR ENGAGEMENT

To the Editor: Recently, the Society for Healthcare Epidemiology of America (SHEA) and the Association for Professionals in Infection Control (APIC) published updated guidelines for the prevention and control of infections in long-term care facilities (LTCFs). This position paper highlights the unique challenges of developing and implementing infection control programs in the LTCF setting.

The guidelines briefly address Clostridium difficile infection (CDI), a growing concern among older adults in acute and chronic care settings. Appropriate hand hygiene (soap and water instead of alcohol-based rubs) and contact precautions remain the mainstay for preventing CDI spread. In addition, the guidelines recommend that patients with active infection should be placed in a private room or in a shared room with another patient infected with CDI, a practice known as "cohorting." The authors correctly point out that, because many patients permanently reside at these facilities and socialization is a vital aspect of care, consistent gown and glove use may not be a realistic standard, potentially leading to emotional isolation and less contact with healthcare providers and staff.<sup>2,3</sup>

Day-to-day clinical experience raises additional questions regarding infection control strategies in the subacute setting. Patients discharged to subacute care are generally transferred specifically for intensive restorative therapies to 570 LETTERS TO THE EDITOR MARCH 2009-VOL. 57, NO. 3 JAGS

improve functional status. Therapy sessions typically occur in a common area, used by many residents throughout the facility. Should patients diagnosed with CDI be restricted from full participation in therapy while being treated for CDI? If so, what is the correct threshold for lifting these restrictions—completion of a 14-day course of antimicrobials? resolution of diarrhea? or documentation of one, two, or three toxin-negative stool samples? Although the prevention of CDI transmission to other residents is critical, delaying physical and occupational therapies for even a few days can result in additional functional decline in already frail patients.

Another matter of concern is the patient who develops diarrhea, spontaneously or after initiation of antimicrobials, and is treated empirically with metronidazole or vancomycin despite multiple negative stool toxin studies. Should these patients be placed in private rooms or in the general population? Sometimes, when private rooms are not available, such patients are placed in a room with a patient who has documented CDI. Determining an appropriate isolation strategy is particularly troublesome when there is no laboratory confirmation of the CDI diagnosis.

At times, LTCFs embrace policies with little or no supporting evidence, often determined by an infection control consultant or supervisory nursing staff. For instance, it was recently observed that patients on a subacute service who were on contact precautions were receiving their meals in Styrofoam containers with plastic utensils. The rationale for this practice was rooted in the nursing staff's concern for the food service personnel acting as a possible vector for CDI transmission when delivering meal trays to residents. Ironically, this practice seemed to result in greater functional impairment and probably minimal benefit in terms of infection control. Some patients were having difficulty using the plastic utensils. This practice contributed to patients not being able to maintain adequate oral intake, particularly troubling given their diagnosis of CDI and the associated decrease in nutritional reserve. Because these concerns were raised, the infection control staff is exploring alternatives.

As the burden of CDI in older adults continues to grow, so does the need to improve our understanding of how to prevent transmission of this serious infection, especially in frail elderly people. Unique understanding of the LTCF from the front line is critical to the successful development of evidence-based approaches that keep overall goals of therapy in mind. We urge all clinicians caring for patients in subacute and long-term care facilities to become more engaged in the infection control aspects of patient care.

Denise R. Flinn, MD Preeti N. Malani, MD University of Michigan Health System Ann Arbor, MI Ann Arbor Veterans Affairs Healthcare System Ann Arbor, MI

## **ACKNOWLEDGMENTS**

**Conflict of Interest:** The editor in chief has reviewed the conflict of interest checklist provided by the authors and has determined that the authors have no financial or any other kind of personal conflicts with this letter.

**Author Contributions:** All authors have seen and approved the final letter and have contributed significantly to the work.

Sponsor's Role: None.

## REFERENCES

- Smith PW, Bennett G, Bradley S et al. SHEA/APIC guideline: Infection prevention and control in the long-term care facility. Infect Control Hosp Epidemiol 2008:29:785–814.
- Kirkland KB, Weinstein JM Adverse effects of contact isolation. Lancet 1999;354:1177–1178.
- Saint S, Higgins LA, Nallamothu BK et al. Do physicians examine patients in contact isolation less frequently? Am J Infect Control 2003;31:354–356.

# CONTROVERSY IN TREATING THE OLDEST OLD WITH HYPERTENSION: IS THE HYPERTENSION IN THE VERY ELDERLY TRIAL THE FINAL ANSWER?

To the Editor: Hypertension is common in the oldest-old individuals and is increasing in prevalence because of the aging population, but whether the oldest old benefit from antihypertensive treatment is unclear. 1,2 The evidence is conflicting. The results from the pilot study of the Hypertension in the Very Elderly Trial (HYVET) suggested that treating the oldest old with stage two hypertension (systolic blood pressure (SBP) > 160 mmHg) reduced the incidence of stroke but increased total mortality.3 Therefore, it is difficult for the oldest-old patients with hypertension and their providers to make decisions on antihypertensive therapy. The final results of the recently published HYVET trial<sup>4</sup> could resolve the ongoing conflict and uncertainty about antihypertensive therapy in the oldest old, but misinterpretation of new trial results could happen, so the internal validity, effect size, and the external validity of the HYVET trial were briefly assessed, and the interpretations of the results are shared here with the readers of the Journal of the American Geriatrics Society.

The purpose of HYVET was to test whether treating the oldest old with hypertension could reduce the risk of fatal and nonfatal stroke. The trial<sup>4</sup> enrolled 3,845 patients aged 80 and older (mean age 83) with SBP of 160 mmHg or greater (mean SBP 173 mmHg) and diastolic blood pressure (DBP) of 90 to 109 mmHg (mean DBP 91 mmHg). The trial patients were randomized to indapamide (1.5 mg) or placebo, and perindopril (2 or 4 mg) or placebo could be added to achieve the target blood pressure of 150/80 mmHg. HYVET was stopped early because the results demonstrated a statistically significant reduction in total mortality (P = .02),<sup>4</sup> although the primary outcome (fatal and nonfatal stroke) barely missed statistical significance (P = .06). Heart failure was significantly lower in the treatment group (P < .001).

Although the HYVET trial meets many criteria of internal validity, <sup>5,6</sup> its early termination could limit the internal validity of the results. <sup>7</sup> This is especially problematic given that the stopping criteria in HYVET were not predetermined. <sup>8</sup> Interpretation of the results with this consideration is particularly important here given that the results were contrary to the results of a previous meta-analysis <sup>2</sup> and the pilot for HYVET. <sup>3</sup>