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POSTTRAUMATIC SUBGALEAL HEMATOMA WITH ORBITAL EXTENSION ASSOCIATED WITH CLOPIDOGREL USAGE IN AN ELDERLY PATIENT: CASE REPORT

To the Editor: We report the case of a 78-year-old female who presented to the accident and emergency (A & E)

department by ambulance after collapse at home. She appeared confused and agitated. Urinalysis showed white blood cells and red blood cells, confirming a urinary tract infection (UTI). She was started on haloperidol and intravenous antibiotics. Provisional diagnosis was delirium secondary to UTI. Admission medications included clopidogrel 75 mg daily prescribed for ischemic heart disease. The patient was intolerant to aspirin because of erosive gastritis. While in the A & E, the patient suffered a traumatic fall sustaining a large left-sided frontal hematoma. Examination revealed a large left painful swelling but no neurological abnormalities. Orbital examination revealed subconjunctival hemorrhages but no hyphema or proptosis. Investigations showed stable hemoglobin (14.9 g/dL) and normal white blood cell counts. Clopidogrel was discontinued, and an urgent brain computed tomography (CT) scan performed. The noncontrast scan showed a large left frontal subgaleal hematoma (SGH) extending down over the orbit but no intracranial abnormality. Over the following week, the UTI and her general health improved, but the SGH worsened, spreading bilaterally down the face, left



Figure 1. Preoperative images of left frontal subgaleal hematoma (left lateral and anterior profiles) and noncontrast computed tomography scans showing large left frontal subgaleal hematoma extending down over ipsilateral orbit. It is highly recommended that the color version of these photographs be looked at for clearer visualization of this hematoma. Color versions may be accessed at www.blackwell-synergy.com/loi/jags

neck, and chest (Figure 1). Plastic surgery was consulted, and an evacuation under general anesthetic was subsequently performed. Operative findings included ecchymoses and swelling on the left forehead with small areas of necrotic and ulcerated scalp. Liquified hematoma with clots was removed, and a swab taken for culture and sensitivity yielded no growth after 5 days incubation. Standard surgical procedures followed, and a vacuum drain was placed that drained less than 50 mL before removal 3 days postoperatively. No re-accumulation of blood occurred, and an uncomplicated postoperative course followed.

SGH is a rare entity associated with pediatric and obstetric populations. We report on the first known SGH with orbital extension in an elderly patient.

SGH is a collection of blood between the cranial periosteum and galea (epicranial aponeurosis). Reports of this phenomenon first appeared in the literature in 1819, when it was called “false cephalohematoma.” Despite its long history, medical practitioners remain unaware of this entity and the potential devastating consequences (particularly for neonates) if it is not recognized. The subgaleal space contains connective tissue and small blood vessels, predominantly veins. It is postulated that SGH occurs as a consequence of radial shearing forces acting on vessels in this zone.³ The principal etiology is traumatic, which can vary significantly in its initial intensity from mild (hair combing) to severe (bony fractures). The precipitating cause in the current case was the fall sustained in the hospital. Other reported causes of SGH include childbirth, particularly with use of delivery instruments. Predisposing factors for SGH also include coagulopathies or platelet disorders, predominantly acquired or iatrogenic rather than inherited. A significant contributing factor in this patient appeared to be concurrent use of the antiplatelet agent clopidogrel. Previous reports of SGH have all been in children and young adults, particularly neonates, in whom clinical signs of hypovolemia are evident, because infants may lose up to 50% of their blood volume into the subgaleal space. Presentation in older people can be variable but may not differ because of decreased circulating blood volume in elderly patients. More subtle features such as minor edema of the face or neck, proptosis, diplopia, or otorrhagia may be seen more frequently and are accounted for by passage of blood between the galea, zygomatic arch, and frontal bone. An important note in older people is that SGH may exacerbate any preexisting anemia. Orbital extension (as seen in this case) occurs in a rare subset of cases of SGH and can be associated with delayed progressive proptosis, which if unrecognized, may lead to blindness. Prognosis of SGH is usually good, although all previous available data relate to the pediatric and young adult population. Management of SGH remains controversial; Falvo et al.⁴ believe that surgical drainage reduces the period of resorption and thus calcification, but Adeloye and Odeku⁵ advocate conservative approaches, stating that surgery increases risk of infection and renewed bleeding. Surgery should be performed in cases of severe pain, scalp necrosis (as was present in this patient), infection, or life-threatening situations. Given that antiplatelet usage is increasingly prevalent in older patients, clinicians should maintain a high index of clinical suspicion for hemorrhage occurrence (and extension) in unusual sites.

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THE OLDEST OLD WITH HYPERTENSION: TREAT OR NOT TREAT?

To the Editor: Treating the oldest old with hypertension is debatable because of the lack of strong evidence from randomized, controlled trials.^{1,2} Unfortunately, there has been only one randomized, controlled trial of antihypertensive drugs that has recruited the oldest old with hypertension.³ This trial showed that treating the oldest old with hypertension for 1 year may reduce stroke in 19 per 1,000 participants but was associated with 20 extra deaths unrelated to stroke.³ In an analysis of antihypertensive therapy based on the Framingham Heart Study (examining the association between blood pressure level and health outcomes in participants taking or not taking antihypertensive medications), the absolute and relative risks for cardiovascular disease outcomes were higher in older people with low blood pressure and lower in older people with higher blood pressure.⁴ In a recent study in this Journal based on the Vantaa 85+ Study, Dr. Rastas et al. showed that low systolic blood pressure was independently associated with high risk of death after adjusting for multiple confounders.⁵