CASE STUDY

Understanding haematomas: unravelling the body's complex reaction

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Abstract

The primary aim of this case study was to assess the clinical presentation, diagnostic challenges, and management strategies for a head haematoma. Understanding these factors, can enhance a health provider's approach to treatment, and management and improve patient outcome. A comprehensive analysis was conducted of the patient who presented with a head haematoma following a fall. The implementation of a conservative management approach was conducted with close monitoring and follow-up appointments. In conclusion, this case study highlighted the importance of a systematic approach to diagnosing and managing a head haematoma.

Keywords case study, haematoma, treatment

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Introduction

This case study addresses a serious incident that can affect anyone at any time: a fall that resulted in a head haematoma. We can often underestimate the fragility of our bodies and the potential consequences of seemingly minor accidents. Imagine a woman going about her day, when suddenly her foot slips, and she tumbles to the ground. In that moment, everything changes. The impact can lead to an external head haematoma, a collection of blood between the skull and the dura mater, the outermost layer of the brain's protective membranes.[1] While it may seem like just a 'bump on the head', the implications can be far more serious. Head haematomas can lead to various symptoms, including headaches, dizziness, confusion, and even loss of consciousness. In some cases, the person may appear completely asymptomatic at first. This variability can often lead to confusion and misdiagnosis, underscoring the need for vigilance in our clinical assessment. It's crucial to undertake the immediate medical attention that may be necessary especially if the patient is experiencing symptoms like loss of consciousness, confusion, severe headache, and bleeding. The treatment for head haematomas may vary based on the size but the management of a head haematoma often requires a multidisciplinary approach, incorporating surgical intervention, supportive care and rehabilitation. Decisions regarding surgical intervention whether to evacuate the haematoma or to monitor it conservatively depend on a variety of factors, including the patient's clinical status, the size of the haematoma and the presence of associated injuries.

Methods

Mrs P, a 75-year-old woman presented to the Emergency Department following sustaining a head haematoma when she fell backward. She has a history of anaemia and postural hypotension and was recently diagnosed with cancer, Duke's C adenocarcinoma of the colon. Her current medication is folic acid, and she is a non-smoker. Mrs P lives with her husband and has two supportive daughters who live close by. She is usually independent and mobilises with a walking frame.

Assessment: A comprehensive analysis of Mrs P was conducted which revealed an open laceration to the back of her head. Vital signs were within the normal limits and the neurologic examination revealed a Glasgow scale was 15, she was oriented to time, person, and place and both pupils were equal, round, and reactive to light. On arrival, she complained of head pain, severe headache, and nausea, but denied any neck or back pain. A thorough medical history, physical examination and imaging studies, including an ultrasound and a CT scan were completed.

Fall risk assessment: This was completed to assess the patient's gait and balance, review eyesight, whether any medications she was taking may cause dizziness and if she felt unsteady when walking or standing or if she had any falls in the past year.

Diagnosis: Nursing diagnosis includes head haematoma related to a mechanical fall. Acute pain, headache, and nausea related to head trauma.

Intervention: Nursing interventions focus on pain management such as administering analgesic medications, and wound management.

Evaluation: Mrs P's pain was reassessed regularly, and interventions were adjusted based on her response. Progress notes indicate a reduction in pain intensity, and blood pressure readings were monitored closely to ensure optimal management of hypotension. Wound care was performed with the head wound cleansed with normal saline, sutured and then a gamgee and tape applied. The patient was then referred to the District Nursing Service.

Unfortunately, underneath the sutured area was a large haematoma and within days this area started to swell, the sutures no longer held the wound edges together and the cavity opened and had heavy haemoserous exudate that became malodourous. The area was difficult to redress due to the patient having high pain levels when the area was touched, and the dressing tended to come off when the patient was lying on her pillow (Figure 1). Mrs P was grappling with feelings of vulnerability and anxiety following the fall and frustration at the lack of healing of the wound with various wound dressings being applied. She had also been told that further treatment for her cancer was halted until the wound was healed. She had ongoing pain issues, was embarrassed about the wound odour and was unable to shower without covering the area with waterproof plastic.

It was during her recovery that Mrs P was referred to a wound specialist. The specialist's role was twofold: firstly to ensure that the surgical site healed properly and secondly to educate Mrs P on how to prevent wound infection, review her nutritional requirements to aid healing and teach the importance of aftercare to prevent complications. To achieve this aim, the wound specialist completed a holistic assessment, a wound assessment using the fundamentals of local wound care summarised in the acronym TIME, which stands for tissue, infection/inflammation, moisture imbalance, and wound.[2]

Her management plan was revised using the principles of wound hygiene[3] to reduce biofilm development comprised of four simple steps cleansing, debriding, refashioning the wound edges, and redressing the wound. Initially, conservative sharp debridement was used to remove the haematoma and bone was felt. The wound measured 10cm by 10cm and was 3cm deep. A review by a surgeon was conducted to review if a skin graft may be suitable but no further intervention was conducted, and the patient was advised this area could be difficult to heal. The patient's hair was trimmed around the wound to prevent discomfort when dressings were removed as this was the main source of her pain for initial wound dressings consisting of hyperfix tape.

The patient's wound had developed slough and the use of Suprasorb G to the area was an effective autolytic debridement of this within four days. Then Mepilex Ag was used as an antimicrobial dressing and was cut to fit the cavity. This product also reduced the number of wound dressings and discomfort for the patient as this could be left on for a week. The patient could then remove this dressing and shower, take adequate analgesia before the wound specialist's visit. The patient's wound progress was monitored over several weeks, and any changes were documented for symptoms and the effectiveness of various wound treatments. It was noted that there was a significant reduction in the size, depth, width and length of the wound over eight weeks (Figure 2).

Results

Our findings revealed that the head haematoma was caused by a minor traumatic injury, leading to localised swelling, tenderness and a large head wound. Imaging studies confirmed the presence of a fluid collection, which guided the decision-making process. A conservative management approach was implemented initially, with close monitoring and follow-up appointments for wound care. Over 8 weeks, the wound healed, and the patient experienced a complete recovery without any complications. Healing considerations such as skin care, sun protection, and the patient wearing a hat when outside, were discussed with the patient. And the patient's hair grew back over the area.

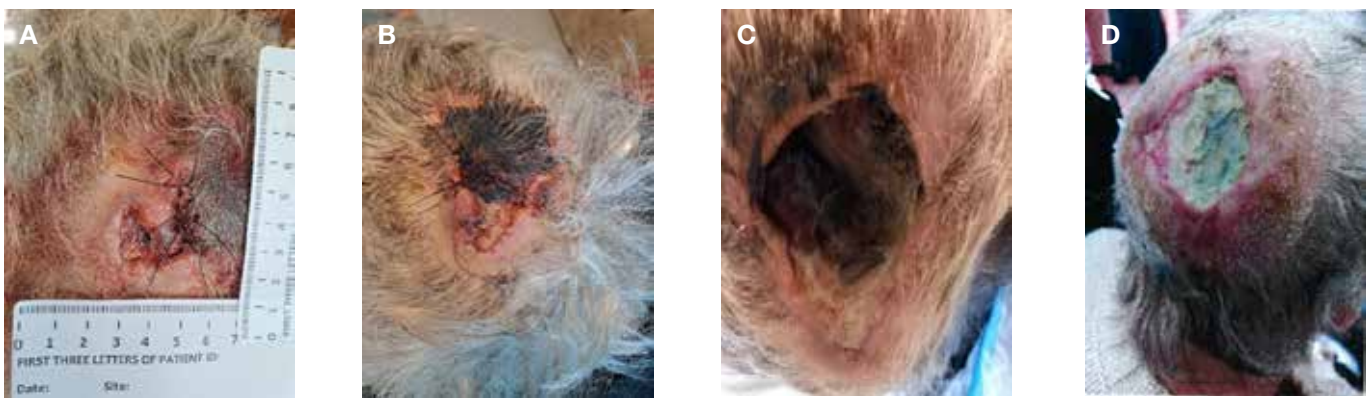

Figure 1. (A) After area was sutured. (B) Within a couple of days, sutures were no longer holding the wound edges together. (C) cavity had opened and heavy haemoserous exudate. (D) 1 month on after various wound dressings.

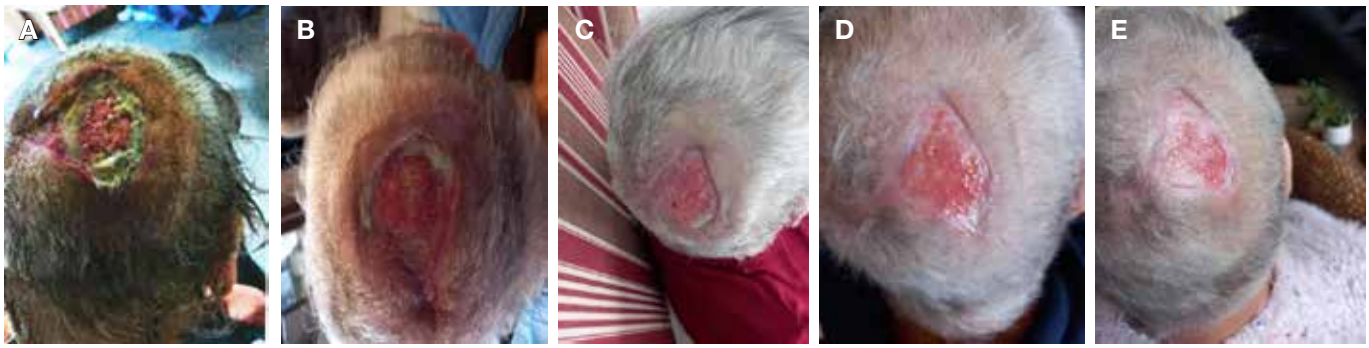

Figure 2. (A) Review a week later after using Suprasorb G to area. Slough has debrided. (B) 4 days later. (C) One month later. Pain has reduced and significant reduction in size, depth, width and length of wound. Weekly Mepilex Border only used now. (D) Area continues to heal with weekly visits. (E) To date only small area to heal. Hair has grown back and nil pain to area.

Discussion

Falls are a significant cause of injury among the elderly, often leading to severe consequences such as a head haematoma. For such injuries it is crucial that healthcare providers understand the diagnosis and management required to prevent morbidity and ensure recovery for this vulnerable population. A head haematoma can vary from benign to potentially serious, depending on its size and location. In some cases, they may resolve on their own, but others may require medical intervention to prevent complications that could significantly impair neurological function and overall health. By raising awareness about this condition, we can ensure that health professionals approach it with the diligence and care it deserves.

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Conflict of interest

The authors declare no conflicts of interest.

Ethics statement

An ethics statement is not applicable.

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