

Harlequin syndrome with contralateral anhidrosis after an upper chest gunshot wound

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DESCRIPTION

A 32-year-old-man presents for evaluation of right-sided chest pain. He has a history of a single gunshot wound (GSW) to his right chest 2 years prior. The bullet penetrated his right chest anteriorly and exited close to his spine posteriorly. A CT scan of the chest at that time showed a right upper lobe pulmonary laceration with several pneumatoceles, comminuted fractured ribs and massive haemothorax. He was successfully managed with placement of two chest tubes and did not require a thoracotomy. Since the GSW he has had numerous symptoms, including chronic chest wall pain, right-sided facial numbness and severe anhidrosis (figure 1A). A repeat CT-chest showed improvement of the right lung contusion but presence of consolidation (likely fibrosis) related to the trajectory of the prior GSW (figure 1B). The patient's

symptoms were managed conservatively without the need for any pharmacotherapy.

Harlequin syndrome 'appearance' occurs when patients develop flushing and excessive sweating on one side of the face in hot weather or after exercise.¹ It results from an intact sympathetic pathway on the non-injured side. This rare phenomenon has been seen to occur transiently in one patient after paravertebral block.² Late contralateral hyperhidrosis has also been well described in patients with laterally medullary infarction and is thought to be due to a lesion of the sympathetic pathway passing through the lateral medulla.³ To the best of our knowledge, this is the first documented case of Harlequin-like syndrome in a patient after a GSW.

Learning points

- ▶ Harlequin syndrome is due to cervical sympathetic pathway disruption and presents with unilateral facial flushing and excessive sweating on the non-injured side.
- ▶ Harlequin syndrome may be idiopathic, iatrogenic, due to trauma, mass effect or brainstem stroke.

Contributors SYN wrote the case, gathered the images and edited the final manuscript. AZ wrote the discussion and reviewed the final manuscript. SPF summarised the learning points and reviewed the final manuscript. PK approved the final manuscript and was the physician primarily involved in the patient's care.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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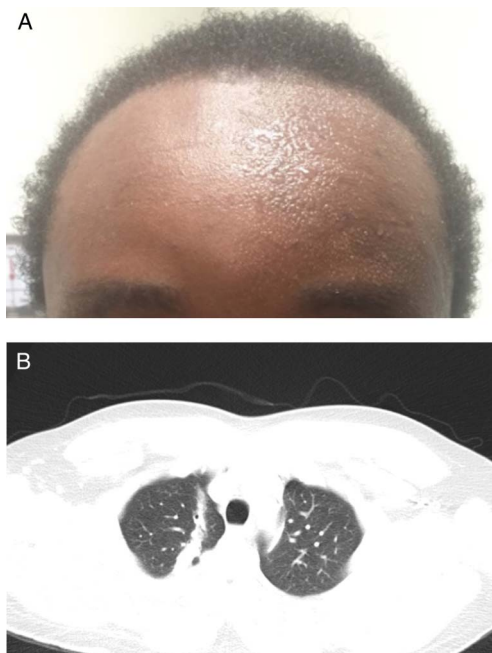


Figure 1 (A) Picture showing evidence of right-sided facial anhidrosis and left-sided hyperhidrosis with flushing. (B) CT-chest showing the presence of consolidation (likely fibrosis) related to the trajectory of the prior gunshot wound.



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