An injured climber

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ABSTRACT

Climbing incidents present a myriad of challenges to prehospital teams. Management decisions are often influenced by factors including difficulties in accessing patients, limited available resources and safe egress from scenes. This case illustrates the importance of an adaptable and innovative approach to scene management and clinical decision making in such cases.

CASE NOTES

The prehospital team was called to reports of a patient who had fallen approximately 25 feet from a ridge while climbing in the Peak District. In-flight the team was updated by the initial paramedic responder that a man in his late teens had suffered a ‘time critical’ head injury and had had a witnessed tonic-clonic seizure. Access to the incident site was reported to be ‘difficult’ and the Mountain Rescue Team (MRT) had been requested by the first responder.

Before landing, aerial survey revealed a number of groups of people situated on a ridge that is known to be popular with climbers. Point-to-point communication with the paramedic at scene resulted in identification of the appropriate group through signalling to the aircraft. Due to the uneven surface of the ground surrounding the area, the aircraft had to land at a site approximately 100 m from the bottom of the ridge.

The helicopter emergency medical services (HEMS) team, including the pilot, moved forward, accessing the scene by means of walking up a steep incline scattered with rocks and boulders. Two kit bergens were carried by the team, containing all of the immediate prehospital equipment, as well as a scoop and securing devices.

After 5 min, the prehospital team made contact with the patient. Primary survey revealed a man in his late teens with an obvious, but isolated, time-critical head injury. The patient had been seen to fall from approximately 25 feet onto his head, significantly damaging his climbing helmet. A boggy swelling was present on the right parietal scalp and copious bleeding noted from the right ear. Glasgow Coma Scale was E2M4V2 with all other observations being within normal limits. The patient was tolerating a nasopharyngeal airway but trismus prevented insertion of an oropharyngeal device. The patient’s climbing companions had witnessed a ‘seizure’ whilst awaiting the arrival of the emergency services and the first responder paramedic had witnessed a further tonic-clonic seizure lasting approximately 5 min that had terminated following the administration of intravenous diazepam.

There was a clear indication for prehospital rapid sequence intubation (RSI) and the need to rapidly evacuate the patient to a neurosurgical centre in this case and a number of management options were considered by the team. Communication with ambulance control indicated that the estimated time of arrival of the MRT was approximately 30 min. The option to perform RSI on the ridge and await MRT arrival or organise winch rescue by Search and Rescue helicopter was discounted given space restrictions and the anticipated timescale involved for evacuation from the ridge.

The patient’s climbing companions, who were understandably in a high state of distress, were tasked with reconnoitring an appropriate route of egress off the ridge. The pilot and one of the HEMS paramedics accompanied the patient’s companions to identify sites in the egress route suitable for RSI. The doctor and other HEMS paramedic secured a second IV line, applied a pelvic binder and secured the patient on a scoop. Within 10 min, the team had identified a suitable route of egress and established a series of safety lines to act as handholds for members of the team.

One of the HEMS paramedics established an RSI kit dump at the first agreed rest point on the egress route. The patient’s climbing companions were briefed by the prehospital doctor regarding the plan to carry the patient on the scoop to the first rest point. The most experienced climber in the group was tasked with acting as a ‘spotter’ for the team and handled the safety ropes that had been arranged. The patient was monitored during the descent by means of a portable handheld pulse oximeter device providing SpO2 and heart rate readings.

The patient’s condition remained unchanged during the descent to the initial rest point. After reassessment, it was agreed by the team to proceed to the second rest point rather than perform RSI. The kit dump was relocated by the HEMS paramedic and pilot to the subsequent rest points as descent down the ridge continued. No deterioration in the patient’s condition was noted during the remaining descent to ground level and evacuation continued until the team reached the helicopter, at which point, MRT assets arrived at scene. The patient subsequently underwent RSI beside the helicopter, approximately 50 min following arrival of the prehospital team. There were no complications and the patient was transported to the nearest major trauma centre (MTC). The total time from HEMS activation to patient arrival at the MTC was approximately 80 min. Injuries included a base-of-skull fracture and cerebral contusion and the patient was successfully extubated in the intensive care unit the following day, and has subsequently made a full recovery.

DISCUSSION

This case highlights the challenges that can befall prehospital teams in the management of patients...
with time-critical injuries following climbing incidents. Innovative use of available resources with a clear, well-communicated plan for patient egress resulted in the provision of RSI in the safest possible environment\(^1\) as expediently as was possible in this case.

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**REFERENCE**
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