

frostbite and were released to descend. On May 15 they were both flown out from the Kahiltna Base. (Source: Peter Fielding, Mountaineering Ranger, Denali National Park)

Analysis

Both seemed to be well-hydrated and well-acclimated, but neither had adequate hand and foot protection: Holmes with very thin gloves and neither with full overboots. (Source: Peter Fielding, Mountaineering Ranger, Denali National Park)

HYPERVENTILATION-INDUCED CEREBELLAR ISCHEMIA (HICI)

Alaska, Mount McKinley

On April 30, 1989, the Penns Woods Expedition flew to the Northeast Fork of the Kahiltna Glacier to ascend the West Buttress route of Mount McKinley. The party arrived at the 4300 meter camp nine days later.

On May 12, during a carry above the 4300 meter camp, while ascending on the fixed-line on the headwall, Joseph Dietrick (32) experienced a sudden episode of symptoms that led the party to suspect high altitude cerebral edema (HACE). Dietrick reported severe dizziness 30 minutes prior to collapse. For two to three minutes, Dietrick experienced extreme ataxia and was unable to stand.

His condition improved with rest, and with assistance, he was able to make it down to the Denali Medical Research Camp in two hours. Dietrick's condition improved with rest through the night, regaining 90% of motor coordination by morning. Doctors Selland and Hackett at the medical camp diagnosed Dietrick's condition as hyperventilation-induced cerebellar ischemia. (Source: James Litch, Mountaineering Ranger, Denali National Park)

Analysis

Dietrick was an extremely fit climber, gained elevation at a reasonable rate, and had not experienced any altitude sickness symptoms prior to the incident.

Hyperventilation-induced cerebellar ischemia (HICI) is thought to be due to an extremely low blood carbon dioxide concentration as a consequence of hyperventilation. The extremely low blood carbon dioxide concentration triggers an acute reduction of blood flow to the cerebellum (the motor coordination center of the brain), conceivably via the hypothalamus of the brain. HICI is extremely rare; however, the condition appears to occur most frequently among extremely well-conditioned individuals such as marathon runners. The high altitude ventilation response when climbing at high elevations may have precipitated the condition in this case. (Source: James Litch, Mountaineering Ranger, Denali National Park)

FALL ON SNOW, CLIMBING ALONE, AMS

Alaska, Mount McKinley

On May 6, 1989, Christopher Bing (30) flew to the Southeast Fork of the Kahiltna Glacier to attempt a solo ascent of the West Buttress route of Mount McKinley. Bing allowed four days to reach 4300 meters and a total of seven days to reach 5200 meters from the Talkeetna Airport. Bing did experience acute mountain sickness (AMS) symptoms after arrival at the 4300 meter camp, but continued climbing after a day of rest.

On May 14, he attempted a summit climb departing 5200 meters at 1200. Sixty meters below Denali Pass, he slipped (wearing crampons) and without any opportunity to self-arrest with his ice ax, began to tumble head-over-heels down the 45-degree slope sailing over two open crevasses. He came to rest 200 meters below. Bing stated that he was unable to self-arrest as his heavy pack pulled him backward when he slipped. He began tumbling immediately.

The fall resulted in a sprained right ankle, and contusions of the right ribs and left thigh. He was able to slowly traverse back to the 5200 meter camp and rappel the rescue gully to the 4300 meter camp. Bing continued a self-evacuation to the airstrip—requiring two full days. (Source: James Litch, Mountaineering Ranger, Denali National Park)

Analysis

Due to the extremely rapid rate of ascent, Bing was fortunate that he did not develop serious altitude sickness. However, it is reasonable that altitude sickness may have played a secondary role in the fall. Previous unarrested falls in this area have resulted in fatalities.

A solo climber traveling over heavily crevassed areas without any means of protecting himself from a crevasse fall, Bing was fortunate not to have experienced a second accident on the lower part of the mountain. (Source: James Litch, Mountaineering Ranger, Denali National Park)

WEATHER, FALL ON SNOW, INADEQUATE PROTECTION, RAPID ASCENT Alaska, Mount McKinley

The British Denali Expedition of Chris Massey (39), John Lang (45), and Julian Dixon (37) flew onto the Kahiltna Glacier on May 1, 1989, to begin their ascent of the West Rib of Mount McKinley. On the 17th, they made their attempt of the summit from a camp at 5000 meters. A poor weather system of wind and snow enveloped the mountain later in the day making travel very difficult and hazardous. Late on the 17th or early 18th, the three were attempting to descend when all three fell from 5500 meters, tumbling down the “Orient Express” ice couloir to 4800 meters. They were killed in the fall. The NPS spotted the victims the morning of the 18th. The three were recovered later that day and flown out by helicopter to Talkeetna on the 29th. (Source: Roger Robinson, Mountaineering Ranger, Denali National Park)

Analysis

On May 20, Tom Bright observed three sets of slide tracks near 5500 meters. It appeared the British started their fall from near this height. This is close to where they were last seen by Stasik and Miller and since Stasik and Miller traversed the accident site three hours later, it could be assumed the trio were descending when the accident occurred. It is unknown how high they ascended, what is known is that the storm intensified to where it was nearly impossible to travel in the wind and white-out conditions. Numerous falls have occurred in the “Orient Express” over the years and all have occurred on the descent. Each of these falls, including this one, could have been arrested if the descending party had put in running belays across the steeper sections of ice. A party planning on making a descent of the West Rib needs stamina and caution to safely downclimb the upper ice sections after a long summit day.