

this stretch of weather. Ascent rates of 2100 meters in four or five days may leave some individuals feeling fine, but can cause serious illness to others. A slower ascent rate tailored to the individual on the expedition who is having the most difficulty can prevent the onset of serious altitude problems. The general rule of ascending only 300-400 meters per day once above 3000 meters is a good one. (Source: Scott Gill, Mountaineering Ranger, Denali National Park)

SLIP ON SNOW/ICE, CLIMBING UNROPED, INADEQUATE EQUIPMENT, FAILURE TO FOLLOW DIRECTIONS

Alaska, Mount McKinley

On May 19, 1985, the 13-member German guided party, led by a guide named Zehleitner, began their ascent of the West Buttress of Mt. McKinley. Following a fast ascent, six days to 5250 meters, the party left for the summit from their 5250 meter high camp at 0400 on May 26. The party's entire ascent was made unroped and using ski poles rather than ice axes. Nine members summited around 1200 and then began their descent, reaching Denali Pass at 1445. Just down from the pass, party member Bernard Pfeffer (38) slipped on a small ice bulge. The fall was first seen by assistant guide Martin Anwander when Pfeffer was about ten meters downhill. Anwander yelled at Pfeffer, but he did not appear to respond as he cartwheeled down the slope approximately 200 meters. Pfeffer was traveling unroped with his ice ax on his pack. Anwander quickly descended and found Pfeffer's body contorted (possibly from descended multiple fractures) and with no sign of life.

Another member of the party, Karl Wimmer (36), descended and reported the incident to Ranger Roger Robinson, who relayed through Hackett that the German party was to bring the body down to their high camp and continue to lower it down to 4350 meters.

Ranger Scott Gill arranged for an 0730 callback time the next morning. On May 27 Zehleitner informed Gill that Anwander and he would begin lowering the body down the rescue gully at 0830. Ranger Gill, VIP Dan White and Brandt Hannah of the Medical Camp began ascending to meet Zehleitner. Gill's party reached the descending party at 5050 meters. They both descended with the body, arriving at 1130. Lowell Thomas, Jr. of Talkeetna Air Taxi was contracted to make the body pickup with his Helio Courier. He landed at the camp at 1100. and was back in the air with the body at 1200 and continued to Talkeetna. (Source: Roger Robinson, Mountaineering Ranger, Denali National Park)

Analysis

This was guide Zehleitner's fourth trip on Mt. McKinley. His guiding practice of ascending very rapidly (seven days to the summit) and not using ropes or ice axes is a style that has been contributing to an ever increasing number of accidents. In addition, this was an illegally guided expedition. One wonders about the level of experience of the guided individuals. And given the briefing which this party—as well as others checking into the Talkeetna Ranger Station—received, where the details of ascending slowly and the use of rope, crampons, and ice axes are covered thoroughly, one also wonders why there is such disregard for following the recommendations. (Source: J. Williamson)

CARBON MONOXIDE POISONING, FATIGUE

Alaska, Mount McKinley

On May 28, 1985, Raymond Weinrich (30) and Charles Wolf (34) had climbed up to 5250

meters on the West Buttress route on Mt. McKinley. They arrived about 2330 on their ninth day after leaving basecamp and were both fatigued. Weinrich elected to crawl into an already established igloo for the evening while Wolf set up his tent.

The igloo was occupied by Ken Leary, who cooked most of the evening and into the morning with his MSR stove. Weinrich had problems sleeping due to a severe headache, and in the morning felt totally incapacitated. When Wolf came over to the igloo, he found Weinrich crying due to the severe pain.

About 0915 on May 29, Wolf came over to my tent to ask for assistance. Upon examination I found Weinrich to have a pulse of 120/m, respirations of 26/m, and complaining of a severe headache. We moved him from the poorly ventilated igloo and into Wolf's tent. Once out of the igloo, he was extremely ataxic and almost could not walk. Wolf and I hooked Weinrich up to O₂ and made him drink fluids.

I made a radio call to the Medical Research Group and talked to Dr. Peter Hackett, who advised me of already deteriorating weather, and recommended bringing Weinrich down immediately.

By 1115 Weinrich had greatly improved. His headache had gone away and his ataxia was better. Wolf took Weinrich off the O₂, and by 1215 we were ready to start descending the West Buttress. Wolf helped Weinrich down the buttress as I belayed over the more exposed sections. The weather had closed in and the winds increased to 30-40 knots. Weinrich continued to improve as we descended, and at 1830 we made it to the medical camp. Upon examination, Weinrich was diagnosed as having CO poisoning. (Source: Roger Robinson, Mountaineering Ranger, Denali National Park)

Analysis

Cooking in an unvented igloo can predispose climbers to AMS and cause CO poisoning. It is imperative that climbers who cook in tents or caves make sure they are well vented, particularly at altitude.

To diagnose whether a person has CO poisoning or cerebral edema on site at high altitude is difficult. Usually CO poisoning will show a drastic improvement after removal from the poisoned environment, but it can lead to more severe altitude illness. Delaying the decision to descend, especially when the weather is deteriorating, could prove to be a fatal mistake.

The symptoms of CO poisoning mimic AMS and cerebral edema. CO combines with hemoglobin in the blood, in preference to oxygen, and therefore reduces the amount of oxygen reaching the brain. In effect, it is like suddenly being taken to a higher altitude. It thus contributes to altitude illness, and is both dangerous and insidious. Prevention by adequate ventilation is of paramount importance. Ventilation in a tent is a function of the wind speed and the vent area; in an igloo or cave it is a function of the diameter of the vent hole. A fist-sized vent hole guarantees adequate ventilation for properly operating stoves. At the first sign of a headache, CO exposure should be considered and ventilation increased. Treatment of CO poisoning is hyperventilation, preferably with oxygen. Descent also increases the oxygen pressure and is helpful. CO poisoning is probably more common than we realize, and may be misdiagnosed as AMS. (Source: Scott Gill, Mountaineering Ranger, Denali National Park, and Dr. Peter Hackett, Denali Medical Research Group)

FAILURE TO CHECK MEDICATION LABEL

Alaska, Mount McKinley

On June 3, 1985, at the 4300 meter level, the subject involved (32) was applying "Preparation H" to hemorrhoids, theoretically. . . . Instead, the subject had grabbed the wrong