

dition (another Korean group).

At 2135 on May 26, the Talkeetna Ranger Station received a call for help. The reporting party spoke only Korean which complicated communication; the only English transmitted was, "Mayday, Mayday." A Korean interpreter/climber was located in Talkeetna who said the climber had "high altitude sickness, frostbite on one leg and frostbite on the hands." The victim was reportedly unable to use his hands and could not walk. The reporting party were two members of the New York Alpine Club expedition who had no rope and only one day of food left. Apparently Baek had reached the camp of the two highest members of the New York Alpine Club expedition but was unable to continue up or down.

Deteriorating weather hampered a reconnaissance flight that night by Jay Hudson in a Cessna 206. Though the western part of the mountain was clear, descending clouds on the Cassin prevented the plane from getting close to the route. Hudson flew at 0815 the next morning when the weather improved. A Korean interpreter, Seung Hwan Lee, and NPS Ranger Ralph Moore were on board. They determined the party's location and told the group to move Baek to the southern end of the ridge just below their camp when the helicopter approached.

Elmendorf Air Force Base's Rescue Coordination Center provided logistical support and coordinated the availability of the Chinook helicopters for this mission. Fortunately, the Chinooks from the 242nd Aviation Company, Fort Wainwright, were in Talkeetna at the time to fly out a portion of the medical/rescue camp. Ranger Bob Seibert organized the rescue effort with Dr. Peter Hackett providing valuable medical assistance. A hook was lowered from the hovering Chinook with a sling and carabiner for Baek to clip into. He was raised 25 meters into the ship from the steep, exposed ridge at 1255 on May 27. Extra food and CB batteries were dropped on the hoist cable to the remaining two people. The helicopters returned to Talkeetna by 1345.

A neurosurgeon who had recently been working at the medical/rescue camp examined Baek and found only the tips of two fingers to be grayish with no frostbite on the feet. There were minor indications that cerebral edema had been present, as residual effects are often still present immediately following such a rapid descent to sea level.

Through working together, this interagency effort accomplished the highest hoist rescue ever done by the U.S. military. The rescue was a smooth operation despite its decidedly dangerous location only because of perfect weather conditions and the fact that the group happened to be near one of only a few flat areas along the ridge where such a rescue could be performed. (Source: Ralph Moore, Mountaineering Ranger, Denali National Park)

Analysis

A solo attempt leaves little room for error. The urgency of this evacuation was questionable due to the minimal medical problems and the substantial risk and expense involved. Self-rescue is imperative unless it is truly a life-and-death situation. (Source: Ralph Moore, Mountaineering Ranger, Denali National Park)

HAPE, ASCENDING TOO FAST, INEXPERIENCE

Alaska, Mount McKinley

On May 28, 1988, High Altitude Medical Project personnel received a report from

another expedition that Masako Yamakoshi (39), a female member of a Japanese climbing team, was ill at the 4300 meter basin on the West Buttress route. Medical personnel contacted the Japanese AWAFF McKinley Expedition team, but were told the woman was fine, so they returned to the research facility without examining her. The next day the medical team received additional reports that the woman needed medical assistance. Again they approached the Japanese team and this time insisted upon examining her. They discovered Yamakoshi to be in the advanced stages of HAPE. She had typical symptoms of HAPE: cough, weakness, fatigue, fast heart rate and shortness of breath. Her oxygen saturation level was 41%. (A normal oxygen saturation level at 4300 meters is 80%.) Yamakoshi was too weak to descend so she was placed on oxygen breathing for the night and administered Diamox.

The following day, her oxygen saturation had improved somewhat. However, no one in her party was strong enough to help her descend. In fact, part of the expedition had left for the summit leaving two other ill members plus Yamakoshi at the 4300 meter basin. Both of these members also were suffering from HAPE! The following day, after spending 60 hours on oxygen and Diamox, Yamakoshi was strong enough to descend under her own power, but there were still not enough members of her expedition to allow a safe descent. On June 3, U.S. Army Chinook helicopters flew into the basin to assist in another rescue. Medical camp personnel requested she be flown back to Talkeetna with those helicopters, arriving in Talkeetna at 1100. (Source: Bob Seibert, Mountaineering Ranger, Denali National Park)

Analysis

Ranger Seibert pointed out that while this team took five to six days to ascend from 2100 meters to 4300 meters, it was still too fast for at least three of the members.

This was a fairly typical case of HAPE, of which there were 12 life-threatening episodes this season. The characteristic symptoms of weakness, fatigue, shortness of breath, fast breathing rate and fast heart rate, and dry cough are diagnostic and any of these symptoms even alone should never be ignored. This group did not recognize HAPE until late in its course, and in fact, they had a total of three members with severe pulmonary edema. If we had not insisted that she be checked, she may well have been left alone and found dead the next morning. She was much too ill to attempt a descent herself and her team was too weak to take her down. Oxygen breathing saved her life and eventually completely resolved the HAPE. Descent would probably have been a quicker cure, but was not practical.

We no longer use helicopters for descent in pulmonary edema, since we can always get someone down the mountain by sled or on their own power after improvement with oxygen use. In this case, when she was quite able to descend on her own, the helicopters arrived on another mission, and she chose to fly down. Since climbers cannot predict susceptibility to pulmonary edema unless previously stricken, every climber must be aware of the early symptoms in order to make the diagnosis early. At that point, descent of only 300 to 1000 meters will invariably reverse the process and result in a complete cure; reascent can be accomplished after two or three days of rest.

Diamox may be helpful, especially in early cases of pulmonary edema, but is no substitute for descent. A pressure chamber may help as a temporizing measure, but is not as effective as high flow oxygen, and should not delay descent. (Source: Dr. Peter Hackett, Director, Denali Medical Research Project)