

in Anchorage. The doctor felt that Fanning was suffering from acute mountain sickness, not pulmonary edema, and advised that the situation was not a critical emergency, but that Fanning should move to a lower elevation as soon as possible. Ebner then called the Park Service and advised them of their situation and also asked for advice about what they should do next. Ebner stated that they did not want to continue up and over the North Peak and also did not want to descend back down Pioneer Ridge. The Sourdough Coulior, a steep gully first climbed by the Sourdough party of 1910, was suggested as a possible alternative. Ebner felt they would probably try that route and signed off. Rose and Joiner started up toward the North Peak to try to catch Swenson and Blume. They ended up bivouacking at 19,200 feet and returned the next day to join Ebner and Fanning.

The four began descending Sourdough Gully on July 12, using ice axes as anchors since they had left their pickets with the last fixed rope on Pioneer Ridge. They descended about 800 feet when an ice ax failed and all four slid and tumbled over 1500 feet down the gully. Ebner and Rose were apparently killed instantly, Fanning had a broken femur and ankle and Joiner was suspended upside down with a rope wrapped around his legs. Fanning tried repeatedly to right Joiner, but was not able to, then he moved over to Ebner and searched unsuccessfully for their radio in Ebner's pack. (Even if he had found it, their location on the mountain would have precluded contact with Radio Fairbanks.) Joiner spent the night hanging upside down and was wearing only fingerless gloves. Fanning had no hat or gloves. (Source: Bob Gerhard, McKinley Park.)

*Analysis.* The party was weakened when they became separated from Swenson and Blume, the two strongest members of the party. With hindsight, it appears that the four either might have made every possible attempt to continue over the North Peak, or might have descended back down Pioneer Ridge (where they had left fixed ropes at all difficult sections and had an igloo at the next camp down). (Source: Bob Gerhard, McKinley Park.)

*PULMONARY EDEMA—Alaska, Mt. McKinley.* Edward Guleke (29) was a member of an expedition which was organized privately and then contacted Alaska Mountain Guides (Ray Genet) for a guide to lead them up the West Buttress. They were flown in on June 20, 1976 and by June 28 had reached 14,200 feet. Guleke felt fine there and the group moved up the mountain. Guleke felt quite tired and stopped at the camp at 16,400 feet with his guide, a doctor, and most of his group. Ray Genet, leading other parties, continued up to 17,200 feet. Guleke and his group rested at 16,400 feet on the 29th, and Guleke appeared to be in satisfactory condition. That night and the morning of the 30th, the weather was bad. The group planned to move up to 17,200 feet late on the 30th and up until 6 or 7 p.m. Guleke felt okay. However, he soon developed distinct signs of pulmonary edema (cough, gurgling chest sounds, weakness). He was given Lasix intravenously at this time and the decision was made to move him to the 14,000 foot level. The following morning Ray

Genet and others were able to move Guleke to 14,200 feet, arriving there about 12:30 p.m. in very poor weather. A doctor at 14,200 feet who examined him at that time stated that he was unconscious, had frothy, bloody sputum, bubbling rales in his chest, a pulse of 140 and that he appeared to be terminal. As Guleke continued to deteriorate, and without oxygen or the possibility of a helicopter evacuation (because of bad weather), the doctor at 14,200 administered a small dose of Lasix to Guleke, although the doctor stated later that he questioned the use of Lasix in these cases. Guleke died approximately two hours after arriving at 14,200 feet. (Source: Bob Gerhard, McKinley Park.)

*Analysis.* The use of Lasix in high altitude pulmonary edema is being questioned (see *Off Belay* magazine, April 1975, article by Herbert Hultgren, M.D.). Whether it helped Guleke, had no effect, or was detrimental to him probably won't be known. In taking nine days to reach 14,200 feet the group was climbing slowly enough for most people to acclimatize. However, Guleke had had pulmonary edema before (at a lower elevation in the Colorado Rockies), and apparently his guides were not informed of the fact. Guleke should not have been on the climb in the first place. (Source: Bob Gerhard, McKinley Park.)

*PULMONARY EDEMA—Alaska, Mt. McKinley.* Richard Smith (38) was a client of the 16-person Rainier Mountaineering, Inc., guided climb (13 clients, three guides) climbing the West Buttress route. The party climbed to 14,200 feet in five days, during which time Smith seemed constantly tired, out of shape, and unable to keep up with the pace set by the guides. He rested at 14,200 feet on the sixth day. On the morning of the seventh day (June 21) Smith had definite signs of pulmonary edema. (Source: Bob Gerhard, McKinley Park.)

*Analysis.* The party definitely traveled too fast for Smith. Reaching 14,000 feet in 5 days may be acceptable but is probably marginal. Smith apparently was never in good shape and probably should not have been allowed to climb in the first place. (Source: Bob Gerhard, McKinley Park.)

*PULMONARY EDEMA—Alaska, Mt. McKinley.* Charles Gasser (20) was part of a six-person expedition ascending Mount McKinley via the Muldrow Glacier route. They began their climb from Kantishna on April 22, 1976. At 7 a.m. on May 18, Gasser began showing signs of high altitude pulmonary edema. The group was at 15,000 feet on the Harper Glacier at the time. (Source: Bob Gerhard, McKinley Park.)

*Analysis.* Gasser became ill 26 days after beginning the climb—certainly enough time to become acclimatized. Pulmonary edema can occur at any time. (source: Bob Gerhard, McKinley Park.)