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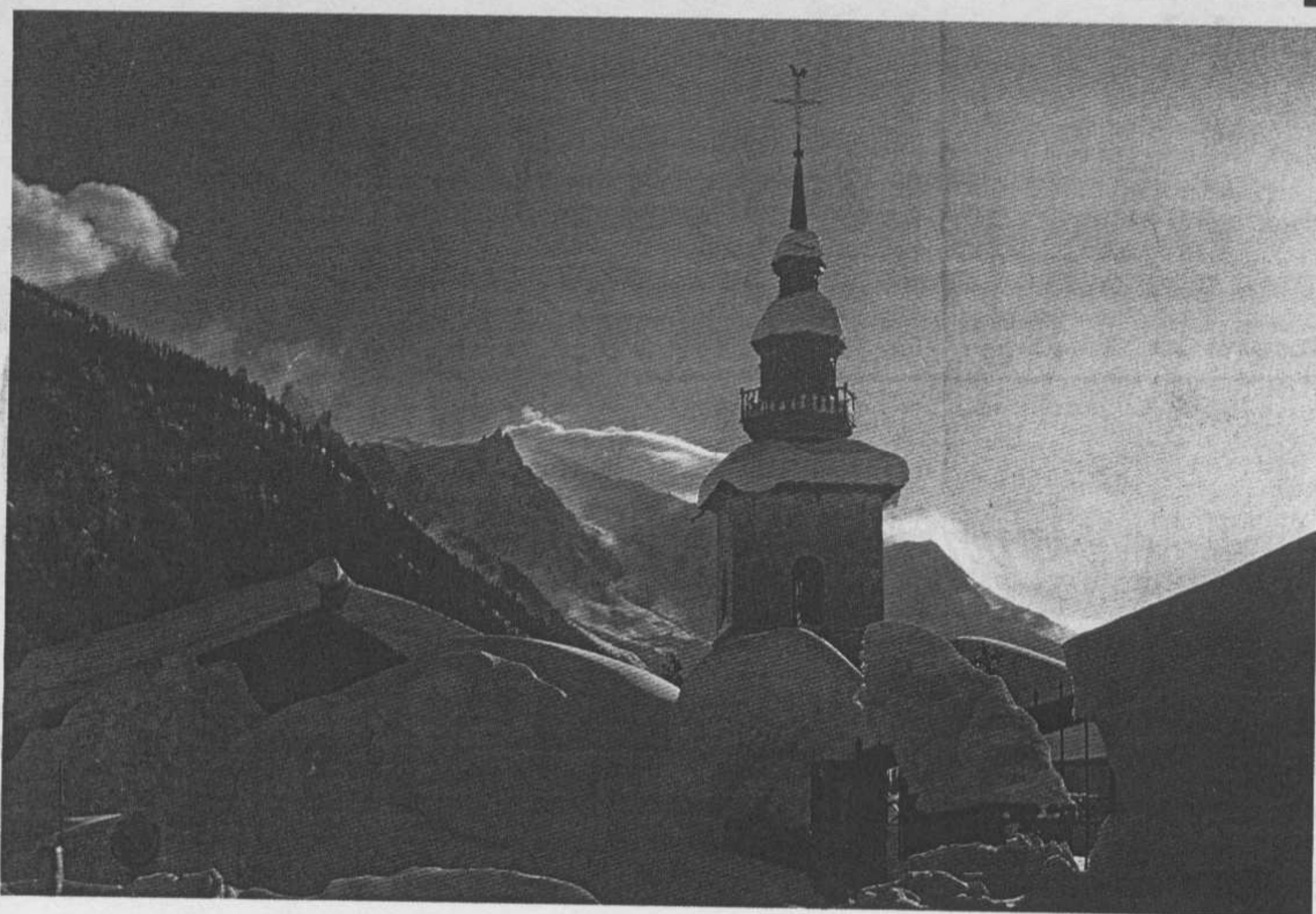
L'épuisement en Altitude



Communications Libres
Résumé des Posters et des Films

ÉDITÉ par J. FORAY
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Avec le concours de la Mairie de Chamonix

HIGH-ALTITUDE CEREBRAL EDEMA SURVIVOR IN BOLIVIA

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I personally came across two cases of high-altitude cerebral edema /HACE/. One of them occurred during the Polish expedition to the Hindu Kush in 1975 and concerned a 32-year old alpinist who died a dozen or so hours since the appearence of the first symptoms of the disease.

I shall discuss the second case in a little more detail as it is one of a few where thanks to favorable circumstances it was possible to save the patient's life. It happened in La Paz, Bolivia in the year 1979. A 19-year old student of medicine in Santa Cruz /400 m above the sea level/ flew to La Paz /4100 m/ in order to continue his studies there. It was his first stay at such a height. Already at the airpoet there appeared the first symptoms of aversion to heights: sudden feeling of weakness, cyanosis, fainting and short-term loss of consciousness. The patient had recovered thanks to the first-aid which was provided at the airport and afterwards accompanied by his family he went down to the centre of the town a few hundred meters below. A few hours later, he suddenly lost consciousness while out on a walk and was taken to the local hospital /Instituto Thorax/.

I had an opportunity to examine this patient and consult his case with other doctors three days after his arrival in La Paz. The patient was unconscious and pale, his skin was covered with perspiration, his breath was short and hurried, he showed signs of cyanosis, his eyes were bloodshot. Every 1-2 hours he was seized with epileptoid convulsive attacks. His heartbeat was hurried, at times arhythmical. On the basis of a medical

examination and an interview with the patient's family, I came to the conclusion that it must be the case of HACE. The local doctors suspected haemorrhagia cerebral or drug poisoning. They treated the patient with glucose infusions and injected him with sedatives. The patient's general condition was worsening hour by hour.

I suggested transferring the sick man immediately to the sea level by airplane. Difficulties in realizing this task had brought me to the doorstep of the president of Bolivia who gave the order to use a special military plane. However it was nighttime and finding the aircraft commander was not at all easy. In the meantime, the patient was in a state of agony. The situation was saved by the patient's uncle who hired an air-taxi at his own expense. We took off from La Paz the following day in the morning and headed for Santa Cruz. When the plane was climbing over the Andes the patient's condition was critical. In spite of continual artificial oxygenation and the administrating of anti-convulsive drugs, the patient showed symptoms of respiratory-circulatory failure and had frequent epileptic fits. Having flown over the Andes, the pilot was permitted /at my request/ to fly at a low altitude, just over the jungle. I then ordered the plane's cabin to be depressurized. Having removed the mask from the patient's face and allowed him to breath with the natural "lowlands" air, his heartbeat and breathing got back to normal in 15 minutes. The epileptic fits had ceased. Having flown for an hour and a half we landed in Santa Cruz. The patient recovered consciousness only on the following day. Initially he was confused and remembered only that he had flown to La Paz. All later events were drowned in complete oblivion. Within a week the patient's condition had improved. He was dismissed from the local clinic. The neurological, psychiatric and EEG examinations as well as psy-

chological tests /Bender, Benton, Graham-Kendall/ did not reveal any symptoms of brain damage. It was only the clinical examinations that had pointed out to the diminished respiratory surface of the lungs and a tendency to arterial hypertension.

I would like to stress that the most amazing phenomenon was the patient's reaction to the lowering of the flight and the possibility of breathing with normal air at a low altitude. An improvement of the patient's state was almost instanteous. The so called status epilepticus had disappeared quickly, the heartbeat and respiratory activity got back to normal.

Moreover, this case has proved that even in the most hopeless situations, it is worth undertaking attempts to rescue the patient and that even the most acute neurological disorders in the course of the high-altitude cerebral edema may recede without leaving any lasting consequences.

Finishing this account, let me make one digression: the above-mentioned student could not eventually continue his medical studies in his own country as the medical departments in Bolivia are situated over 2800 m above the sea level, for instance in Cochabamba or La Paz.

The happy ending which terminated this unusual consultation has allowed me to regard it as one of the most beautiful adventures in my medical career, as well as in my experience as mountain lover.

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