

Guest Editorial

The Pilgrim at High Altitude

Mountains are perceived to be the abode of the gods, and people have sought to obtain religious merit points (*punya* in Sanskrit, *sonam* in Tibetan) by ascending mountains to pray. Moses, Mohamed, Shiva, all have important association with mountains. Mountain worship in the Andes is also well known (Reinhard, 1992). Pilgrims since time immemorial have climbed up the mountain to worship their deity.

Unfortunately, many pilgrims ascending mountains suffer from mountain sickness and characteristically die quietly. If a trekker or a climber dies at high altitude, the incident is usually reported widely; furthermore, high altitude pilgrimage sites usually do not have the same allure as Mount Everest. Yet many thousands of pilgrims travel to high altitude regions in the Himalayas to pray. For example, annually around August during the full moon, thousands of hasty pilgrims scamper up too high too fast (in 2 to 3 days) by car and on foot to a local pilgrimage site north of Kathmandu (1300 m) called Gosainkunda Lake at 4300 m. Amazing numbers seem to suffer from acute mountain sickness (AMS), high altitude cerebral edema (HACE), or high altitude pulmonary edema (HAPE) (Basnyat et al., 2000). Pilgrims feel that turning back down with illness is inauspicious (Basnyat, 2002) so they risk HACE or HAPE, the life-threatening forms of altitude sickness.

These pilgrims simulate the behavior of many overzealous trekkers, who keep ascending in the face of altitude illness and risk dying. Occasionally, pilgrim congregations and gurus, ignorant about altitude sickness and acetazolamide, fly up from Kathmandu in large Russian helicopters to 4000 to 5000 m for a religious meeting or for reading of the holy Vedic

scriptures for a few days in a tranquil high altitude region. Imagine going up so suddenly in a helicopter to these altitudes! Many suffer from altitude illness and clearly are in no mood to listen to the teachings of the guru. The helicopter pilots are kept busy ferrying passengers up and down! Damodar Kunda in the Mustang region of Nepal (4890 m), Mukti Nath (3900 m) north of Jomsom in Nepal, Kedar Nath (3584 m) in India, Lake Tilicho (4900 m) in Manang, Nepal, and, of course, Lhasa, Tibet (3650 m), are some high altitude regions that pilgrims ascend to either by foot, road, or aircraft.

Probably the most visited and arduous high altitude pilgrimage site in the South Asian region is Mount Kailash (6714 m), the center of the universe in Vedic thinking, where annually thousands of Hindus, Buddhists, and Jains come to circumambulate the sacred mountain and bathe in the nearby Lake Manasarovar (4560 m). Most of these pilgrims are unaware of and ill prepared for the hypoxia of high altitude; predictably, many pilgrims fall ill and some succumb to their illness. Unfortunately, because no records are kept, the extent of the problem is unknown. Often patients are misdiagnosed as having altitude sickness and treated incorrectly. In addition, many of these pilgrims are elderly and have concomitant illnesses. Sometimes the strongly devout pilgrims feel privileged to die in the precincts of the holy mountain and do not want interventions. Indeed, many factors conspire to work against the safety and rescue of these pilgrims.

Clearly, pilgrims are a vulnerable group ascending to high altitude without prior knowledge of altitude illness. The pilgrims are in the same state as the western trekkers were in the "pre-Hackett" days of trekking in the Himalayas (Hackett et al., 1976) when trekkers suf-

ferred from altitude sickness due to a lack of knowledge and simple prevention and treatment methods for this illness. The other vulnerable group in the Himalayas are the porters (Basnyat and Litch, 1997), but I think the awareness level is even less among the pilgrims. At least, through different helpful agencies (for example <www.ippg.net>), people are learning to take care of their porters and helping to enhance the knowledge of porter safety. No such concerted help has been forthcoming for the pilgrim. Fortunately, there are some good signs. For more than 15 years, during the Gosainkunda lakeside festival, the doctors of the Himalayan Rescue Association have been trying to provide help for the pilgrims at the lakeside at 4300 m by treating people with acetazolamide for AMS and dexamethasone for HACE. Pilgrims going to Lhasa, Tibet, are unable to make a staged ascent for proper acclimatization, and so they are regularly advised by many local agencies to take acetazolamide, even though incorrect information is still perpetuated by many guidebooks (Mayhew and Kohn, 2005) about acetazolamide masking the symptoms of altitude sickness. In the medical school curriculum in this part of the world, there has recently been a great emphasis on hypoxia of high altitude, and this increase in the knowledge base of health professionals certainly bodes well.

Many pilgrims are people living in the West (of South Asian ancestry) who are visiting friends and relatives (VFRs as they are known), so doctors in the West, while counseling these travelers, may need to recommend not only vaccinations such as typhoid, but also to pro-

vide health education about altitude sickness and fitness for travel to high altitude where relevant. Clearly, the Nepali and the Chinese government could do more. People seeking visas or permits to make a pilgrimage to Mount Kailash could be provided with a fact sheet on the dangers and prevention of altitude sickness. On the Tibet side, arrangements for helicopter rescue for descent of a pilgrim with life-threatening illness, which is at present unavailable, would be clearly worthwhile, as the Nepal experience has shown. Implementing these and other basic steps would help ameliorate the silent suffering of many pilgrims, who in spite of many hardships will continue to flock to high altitude regions to worship.

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