Chapter 21 High Altitude Sickness Not a Challenge but a Risk



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Being hit by acute mountain sickness made me realize that it can happen to anyone.

I was leading a trek to Kalindi Khal. The day before going to the Kalindi Khal we were on acclimatization hold at Vasuki Taal. My SpO2 (Oxygen Saturation) level was 99%. My pulse rate was 67.

With Gods grace weather cleared up quite a bit on the pass crossing day. It was extremely sunny, and the entire trail was covered with 2–3 feet of snow.

We started the pass crossing climb at 6:08 a.m. towards Khar Pathar at 17,000 Ft. While Progressing ahead, realized that around 3 trekkers were too slow and were lagging behind.

So, to check on them I quickly went 1 km up towards the pass. It was a 15 minutes' walk up again.

After a while I got a throbbing headache and I started feeling pukish. The headache soon turned severe. It was a 9 on a scale of 1 to 10. I was extremely fatigued, dehydrated, and hungry at that time.

I immediately took Paracetamol 650 and Pan-D started munching some chocolates. Because of my condition I took the call of reshuffling the team. I went ahead with the lead guide descending as quickly as possible. My SpO2 level was around 90% at the altitude of 16,250 ft.

As I reached back at Meru Glacier campsite, I ate some more snacks, and hydrated self and rested for 1 h. By then the headache had subsided considerably. I was still feeling fatigued.

My SpO2 level came up to 95% at 14,000 ft. By night time my headache and all other symptoms had subsided.

An incident like this makes me realize how AMS can hit anyone. I have been in a high-altitude region for quite some time. I had even done a recce of the Kalindi Khal acclimatization trail up to 16,000 ft. on previous day and day before.

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What went wrong was not eating enough breakfast and lunch on the glacier crossing day. I also drank very little water till I reached the 17,000 Ft.

When you have varicose veins, your mind is consistently searching for answers. You may find yourself looking for clues about what helps you to feel more comfortable, and about what causes discomfort to increase. We often look at factors such as weight and how long we sit or stand, but did you know that there may also be a correlation with the presentation of venous insufficiency and where you are located at any given moment?

Things Are Heating up

It is common for people to look at the ways that cold weather affects the body. Joints seem to get a little more creeky and cranky when the temperature drops. When it comes to veins, though, pay attention to how you feel when things heat up. Some studies indicate increased symptoms and complications with varicose veins in warmer temperatures. These include not only that sense of pressure, but also cramping in the leg muscles, swelling, and itching.

Knowing your Risks and Acting Accordingly

So, if varicose veins become more symptomatic in hot weather, the next step is to take appropriate action. This does not mean staying indoors in the nice, cool, airconditioning. Physical activity is integral to managing vein health. To offset the effects of heat, experts recommend taking extra care to hydrate. When we drink plenty of water, we have more water and salt running through the body; its muscles and tissues, and even the blood. Hot weather makes us sweat, which decreases salt-levels, which causes the body to retain fluids. Fluid retention equals swelling. Swelling means pooling blood. You see the pattern.

Going to New Heights

We're relatively safe from exorbitant heat now that summer is behind us, but many people may be planning a winter vacation that will take them to new heights. Heading up to the top of a mountain, or traveling by plane to see loved-ones, may feel unnerving if you've heard that altitude will affect the presentation of varicose veins. Fortunately, this is more myth than fact. Yes, flying could cause varicose veins to feel more "pent-up" or swollen. However, experts believe that he may have much more to do with the lack of movement than altitude. If you plan to fly, take

time to walk during layovers, or before and after flights. Also, when possible, get up and move around the cabin to prevent stagnation in the lower extremities.

A Beginner's Guide to Acute Mountain Sickness

Picture this, you're enjoying a beautiful trek through a Snow line above 12,000 Ft when suddenly your partner complains of a headache and feels a little dizzy. You get to your Camp site and he doesn't feel like eating anything. Sound familiar? He might be suffering from Acute Mountain Sickness or AMS. AMS is one of the most common risks that trekkers face while trekking at high altitudes. This usually occurs at altitudes above 2500 m and is the degradation of health due to the gain in altitude (Pictures 21.1, 21.2, 21.3, 21.4, 21.5, 21.6 and 21.7).

Picture 21.1 Himalayan Glacier, Picture courtesy of: Souvik Mukherjee



Picture 21.2 Himalayan Glacier, Picture courtesy of: Souvik Mukherjee



232 S. Mukherjee

Picture 21.3 The peak as in heaven, Picture courtesy of: **Souvik Mukherjee**

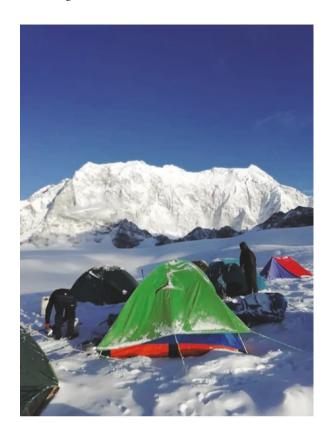


Picture 21.4 The trail, Picture courtesy of: Souvik Mukherjee



Why does it happen? When one gains altitude, the density of air reduces correspondingly reducing the amount of oxygen absorbed by the lungs with each breath. AMS occurs as the body does not have time to adjust to this reduction of oxygen. Mild AMS is a common phenomenon, and the symptoms are usually easy to identify.

Picture 21.5 The Trail, Picture courtesy of: Souvik Mukherjee



Picture 21.6 The tent, Picture courtesy of: Souvik Mukherjee



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Picture 21.7 The tireless climber, Picture courtesy of: Souvik Mukherjee

By far the best method to prevent AMS is through a process known as acclimatization however, Drugs such as Diamox are effective at reducing the symptoms.

Acclimatization is the process in which an individual adjusts to a change in its altitude, allowing it to maintain performance across a range of environmental conditions. Some basic principles for acclimatization are:

Don't gain altitude too fast i.e. maintain a slow pace while trekking at high altitudes

- Avoid exerting yourself for the first 24 h at a high altitude
- Take one acclimatization or rest day for roughly every 900 ft. gain in altitude
- "Climb High and sleep low." You can climb more than 1000 feet (305 m) in a day as long as you come back down and sleep at a lower altitude.
- Stay properly hydrated. Acclimatization is often accompanied by fluid loss, so you need to drink lots of fluids to remain properly hydrated (at least 3–4 L/day). Urine output should be copious and clear.
- Avoid gaining altitude if you have some symptoms of AMS.
- Keep in mind that different people will acclimatize at different rates and the group must ensure that everyone is properly adjusted to the altitude before moving higher.

There are more to it from the Medical point of view. Above are from my experience as an High Altitude trekker for 20 plus years. Have been affected by AMS and have witnessed and rescued few seasoned trekkers as well. High Altitude Sickness should not be taken lightly, Every trekker or Mountaineer must know the symptoms to prevent further deuteration.

A Lone Ranger

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I am Project Management Professional in the field of Risk & Compliance with HCL Tech. Been a Mountaineer and Search & Rescue Specialist have served Indian Armed Forces.