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MMSN Newsletter

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Check out the Unknown

Prof. Dr. Buddha Basnyat

I cannot believe how time flies. But I used to say this as a kid even in 1970. It is true though about time flying, and what seems truer is that as we age, time seems to fly faster. Yesterday you were in high school, and before you know it you are now making plans to do your postgraduate work in medicine, for many of you this will mean going abroad. To USA or England, perhaps. You will be impressed by life there, the fast pace, the recognition that follows hard work, better fortune, seemingly a brighter life for your offspring and spouse, and importantly a predictable life. Poor Nepal can hardly offer you any of these, especially not on the grand, western scale.

Yet for an increasing number of people from South Asia there seems to be a trend these days to want to come back and contribute your " two cents" to your country. This is an energizing thought and transcends the usual wealth yardstick that is relentlessly used in the western, materialistic world. The economy in our neighbouring countries is certainly improving by leaps and bound, and people from these countries find it more and more attractive to return from the west after their training.

I think there is also another slightly mystical factor that makes people return and that is that too much predictability in the west makes life actually boring, that your chance of truly being alive are greater here than there. Human beings sense this *ananda* that results from being truly alive and there is also a natural attraction for the unknown. In the Kabala, Jewish, sacred, mystical text) it says that when God created the world and was about to push the last button, even he wasn't sure. He said, "I *hope* it works." We puny humans need to introduce this amazing concept in our lives to enrich our own existence here.

Which brings me to my point. I think another way that you as young medical doctors can feel the desire to come back to Nepal to enhance your life experiences will be if you do some research in the mountains of Nepal. This way you will "bond" with the mountains, have an invigorating experience, and clearly I think you will be more motivated to come back here and do your bit. This will naturally have to be of your own volition.

I know some doctors who live abroad but know more about the intricate, daily politics here than you and I. I do not wish you to be like that. They live there but the heart is here. Wherever you live you have to be there, body and mind. If not this is an effective prescription for a potential mental breakdown. The doctors in the above example are trying to have " chici pani, papa pani". Make your life simpler while you still have the chance. Join the Mountain Medicine Society of Nepal and get involved whole heartedly and factor the unknown, the unpredictable in your own lives to make this life a truly worthwhile experience. Good luck.

Buddha Basnyat MD.
President

EDITORIAL

Dr. Soni Srivastav

It came as a surprise when Prajan asked me to edit this issue of the MMSN newsletter. After all, what do I know about mountain medicine? Which is a sad thing, because this feeling is generally shared by many in my generation of young doctors. Here we are, enthusiastic young doctors determined to make a mark, dreaming about a difference-making career in the US and holidays in the Alps. When in fact, we can have both right here in this kingdom nestling in the lap of the Himalayas. By no means am I saying we shouldn't go abroad. What I am saying is most of us haven't realized the vast untapped career field we have right on our doorstep. And if we have realized it, we're too lazy to take the initiative to do anything about it.

Fortunately this is changing, and MMSN is a major step towards producing awareness among Nepali doctors that we don't need foreign doctors to come and treat in our mountains. Did you know that when doctors are needed at high altitudes, foreign doctors are paid massive paychecks in dollars or euros to attend those calls?

Mountain medicine in our country hasn't been established yet as a definite career option, but why not? Certainly

not because it's not needed. Want of awareness, of training opportunities, perhaps. But surely not for want of interest?

MMSN strives to create this awareness and training opportunities for interested doctors. This doesn't mean that we expect everyone to make a career in high altitude medicine. In the near future we expect to have a group of doctors who are well equipped to work at high altitudes, when the need arises, or perhaps for a few months a year, while the rest of the year they practice at 'normal' lower altitudes.

If you are a young doctor (young at heart) who is looking to widen your horizon, looking for new experiences, perhaps looking to experience and serve a bit of your home country before you set off to far off lands, you are the doctor we are looking for.

In this second issue of the MMSS newsletter, read about the experiences of our MMSN members as they treated pilgrims and conducted research at Gosaikunda, Dr. Puncho Gurung as he conducted a house call high into the mountains and Dr. Prajan Subedi who made gorgeous new friends at Everest Base Camp, and many more, with a bit of general knowledge on medicine at high altitudes thrown in.

I hope you will enjoy reading this newsletter , as I end, special thanks goes to Dr. Buddha Basnyat and Dr. Pritam Neupane for inspiring leadership, and to Dr. Sanjai Yadav for helping in the formulation of this newsletter.

Climb every mountain, but slowly!

EXPERIENCES

A memorable call
A house call in Nepal's Himalayas

Dr. Puncho Gurung

The young man came into the Himalayan Rescue Association aid post in Manang at midday. He asked me to go and see a man in a nearby village who had been sick since the day before and was unable to move. I stuffed my medical gear into a backpack and followed the man to the horse that he had brought along, and, after a two hour ride, we finally arrived at his village.

We walked through the narrow alleys to the patient's house, where a cow greeted us on the ground floor, and climbed the wooden staircase to the terrace to find a middle aged man lying still on a mattress. Though in agony, he tried to smile on seeing me. The history of his ailment and subsequent physical examination made me think that he had either acute cholecystitis or liver abscess. He looked pretty sick, so I started treatment with intravenous fluids and antibiotics, followed by pethidine, which made him doze off for a while.

He needed an abdominal scan, and the nearest place where it was available was four days' walk away. Helicopter evacuation seemed unfeasible as this is too expensive for most Nepalese. The only viable option was to fly him out from the local seasonal airfield, which was two hours' walk away. After telephone calls to the city, we found out there was a plane flying in tomorrow. This was our best bet. By now it was apparent that my patient needed medical supervision until he could be flown out to the city hospital, and I sent the young man back to the aid post to get extra drug supplies.

Strong winds started in the evening, and it snowed late into the night. This had stopped by the morning, but the whole valley was now covered with thick fog, and it seemed unlikely that the flight would come in. After a few hours, however, the fog started to clear, so we put the patient in a large basket, his legs dangling from two holes in its side, and started carrying him to the airport. The flight came in when we were halfway along the trail. Two of us rushed ahead to ask the pilots to wait, and the party finally made it just as the pilots, impatient to leave, were preparing to take off. To save a few precious minutes, the sick man was lifted over the perimeter fence of the airfield.

A few days later, I got the news that my patient had had liver abscess and was recuperating in a hospital in Kathmandu.

Puncho Gurung, *volunteer physician*
Himalayan Rescue Association, Nepal

APD and AMS at 3900m

Matiram Pun, Dr. Bhupesh Khadka

It was August 27, 2004; I was equipped with a 35-80mm (zoom) Pentax camera. We were enjoying the sunset in the far North-West Tibetan Plateau from the hotel premises at an altitude of 3900m of Nepal Himalayas. The trekkers and Locals say we can see the Great Wall of China from the Surya Peak (5000m) in fair weather. Dhunche, the headquarter of Rasuwa district, seemed deep in the gorges of Langtang and Trishuli rivers while Langtang Lirung Himal was standing with the majestic guardianship on the left. As the sun slowly slipped into the leeway of sky and Tibetan plateau, in the North horizon, the pilgrims were coming in groups. The elderly and children were being carried by the porters and some were on horse back. One of the groups of women who came on horse back, were residents at altitude (1400m) of Nepal Valley-Bhaktapur proper.

Half an hour after the pilgrims' arrival, there was much *khailabaila* in the hotel. An HRAN (Himalayan Rescue Association Nepal) official told me someone was having a serious problem. In the meantime, Surendra told me a lady had acute mountain sickness (AMS). He had already told them: Descend! Descend!! Descend!!! That is mainstay of management of mountain sickness which Prof. Buddha taught us. They had complied. Actually one woman who was on horse back had fallen unconscious within fifteen minutes or so after she had been there.

With the due consideration of the seriousness of the case, I promptly consulted Dr. Ramesh and Dr. Bhupesh and went down to where she had been carried. She was the leader of their group and had not taken anything that day. All of them were there from the height of 1900m (Dhunche) to the height of 3900m in a day for which we took two days. Everyone was saying mountain sickness and I was also equally convinced. Govind Basyal (Senior Medical person of HRAN) and Surendra Khanal accompanied with all the necessary medical kits. With the consideration of severe AMS, we were about to administer Dexamethasone (intramuscular) and Diamox oral if possible. In the meantime, Dr. Bhupesh joined us and took detailed history of the patient with other members. She was known case of Acid Peptic Disease (APD) and had been admitted at Dhunche Hospital with its aggravation on the way to Sacred Lake. She had continued her mission despite all that and more than that without taking food. So it was the case of, basically, APD with hypoglycaemia further aggravated by mild AMS. The immaturity and haste in the case diagnosis and management can sometimes be upside down. Foremost importance, that everyone in medical science agrees, is careful history taking and its analysis. Dr. Bhupesh was rightly there like a consultant and carried out his responsibility smartly. She was given Dextrose intravenously and assessed. When she regained the consciousness, she was given Antacid gel (that she was carrying) Ranitidine and Diamox. Since she was having severe pain, we gave i.m Voveran as well. With the proper counselling, we also strongly advised them to take her down. Almost all the members of the group complained of headache. She was carried down to the height of 3600m (Cholangpati) in a Hotel. She could not make it to the Sacred Lake!

Acute Mountain Sickness (AMS)

- It is a syndrome complex of (a) headache (b) nausea (c) dizziness (d) sleeplessness and (e) fatigue. Of these, headache is the cardinal symptom.
- Nobody is immune to AMS above 2000-2500m.
- It is not related to physical fitness or gender.
- Early AMS feels exactly like alcohol hangover. It is also heralded by the feeling of deep inner chill or a sense of not being well.
- Late or advanced AMS denotes increase in severity of the above mentioned symptoms.
- A typical picture will be: a porter arrives at a high altitude carrying a heavy load. Immediately, he goes in a corner of a dark room and rests there covered with a blanket from head to toe. He doesn't want any tea or snacks. He starts to throw up once in a while. When asked, he says he has the worst headache as if somebody is hammering a nail into his forehead and he feels terrible. He is still huddled in the corner at dinner time. When friends bring him food, he does not even want to look at it. When asked, he says yes, I want to go down.

Acknowledgement

We are grateful to Himalayan Rescue Association of Nepal (HRAN) and Mountain Medicine Society of Nepal (MMSN) for supporting us. We would also like to thank Mr. Govind Basyal, the senior medical staff of HRAN and Mr. Surendra Khanal, a medical student and member of MMSN attending the Health Camp, who helped in the management of the case. Professor Dr. Buddha Basnyat, the president of MMSN deserves our sincere gratitude.

INTO THIN AIR

Not by Jon Krakauer

It was dreams come true for me. I was full of mixed feelings- a bit anxious, a bit worried, a bit nervous and a bit afraid when I was asked to accompany a team of researchers going to Everest Base Camp (EBC) for a study. To tell the truth, I was happy like anything to get this opportunity. On top of everything, I was curious regarding responsibilities in the study.

"Hello there!" It was Dr. Keith Burgess greeting me after I reached the hotel where he was staying with the rest of the team. The team included Dr. Burgess, his daughter Katie, Dr. Phil Ainslie and Phil's girlfriend, Leanne. Of course, I was supposed to join them.

Saturday morning it was, when we all met first. The night before I had been on duty and it was quite a busy one. So I was feeling sleepy. After a short introduction and brief discussion regarding the study I came to know my job was to collect arterial blood sample for analysis at Kathmandu and EBC. In total there were three sets of study- sleep study, ventilatory response and arterial blood gas analysis. All of these were supposed to be done on the same subjects at Kathmandu and EBC. The subjects were none other than ourselves and some other trekkers who were willing to help us. The analysis of the data is supposed to give an idea regarding the prediction of periodic breathing at high altitude.

Whatever might be the goal of the study, the only matter that was worrying me was taking arterial blood samples. I had thought of going to ICU to see the procedure before the team arrived here in Kathmandu because I had got some clue when I read the proposal. But it never happened. Now I was there; stranded. And to add to my worries I was expected to do the procedure outright!

Feeling sleepy, never done the procedure before; I pulled my guts together and decided to give it a go. On the first prick the blood rushed into the syringe. Thank God! I had seen a senior doing the procedure some two years back. It helped a lot. "Well done!" I got the reward. After spending some time there, I came back home.

I just went straight to bed as I was very tired. It was only few hours of sleep when my eyes were open I could feel. "Wow!! I did it." I was overwhelmed with joy.

A week passed with our baseline data collection at Kathmandu. I had become quite confident in collecting the arterial blood.

It was the time to head for EBC. Dr. Burgess and his daughter had planned to go with an expedition team so they left two days earlier. I, Phil and Leanne left two days later. We were doing independent trekking and taking tea-houses on our way up.

It was fun going with them. It took me quite a while to get adjusted with them. But I hope I did it well. I was feeling a bit lonely till I reached Namche Bazar. There I found a friend. She is gorgeous- regarded as one of the best in the world. Whenever I felt lonely walking along the trail, I would just look around at her and that's it; I was ok. We were together till Dingboche. From there I had to go on and she had to stay. My friend there was none other than Mt. AmaDablam!

We took our time while going up there. We enjoyed the beauty of nature. Sometimes running down the hill, at times taking a nap in the yak farms and talking to each other about past trekking experiences; we had no idea how those nine days passed. After walking nine days from Lukla we were at the EBC.

The air was thin; tents were colorful; people were friendly and from various countries; mountains were all around; the weather was chilly and windy-it was EBC.

We started work the day after we got there, we meant business. Everyone was doing their part smoothly. It was me who was struggling. High altitude; chilly weather; constricted arteries; thick blood; too many people watching and it was a 25G needle I was using. Taking arterial blood out left me sweating even at EBC. No matter, I used a hot water bottle to warm the artery for a few minutes. I had to do multiple pricks. But when I went for a larger needle it did the trick. It was a lot easier.

We only had to work for a few hours each day. After that, we dispersed. That's when I started to feel lonely. I am the kind of person who can sit alone for hours without feeling lonely. But it was not the case there. I had to find a friend. And found plenty there-white glistening mountains, rocks standing on the ice and Khumbu icefall- all became my friends. Whenever I started feeling lonely I had their company throughout-be it day or night. There were a few Nepali expedition teams where I used to go on and off and talk for hours. Of course Sherpas were always there with me.

Time at EBC just flew. We were done with our data taking and it was time to head down. But I never felt like I was spending my nights at -20 degrees Celsius. I was staring to enjoy it. I wanted never to leave the place. It was the first time I had made so many friends in such a brief time. I didn't want to break their hearts by leaving them alone there. But it wasn't meant to be that way. I had to come away. I did.

Heading downhill was also fun, in it's own way. The joy of returning home, meeting old friends and eagerness to share experiences just kept me sparkling. I could not walk because I was running all the time. It took only four days to reach the place from where we could fly back to Kathmandu (Lukla).

It had been a good learning period for me. I learnt –to work independently, to work as a team, to travel without friends or family, to make new friends, to accommodate with people who are different in many aspects (country, culture, thinking, attitude etc.). Most of all I got a great chance to know myself, my capabilities and my boundaries. Thank you, MMSN, for this odyssey.

RESEARCH

The 2061 Goshain Kunda Trip

Dr. Ramesh Subedi

Going to the Goshain kunda has always been fun. I cant say if it is the grave face of the lake or the magnanimous presence of the mighty mountains that enthralls the experience of each such trip, but it is for sure the colorful presence of the pilgrims that throng the holy lake at Janai purnima that adds life to the whole experience.

High up there where the air is thin , playful mists veil with tantalizing gait the holy lake which lies there with unearthly calm, spreading eternal peace with each ripple that arises in it.

Do s and don't s at high altitude

Do	Don't
1. Listen to your body	Attribute headache, fatigue etc. to cold weather or exertion.
2. Drink plenty of safe warm water. (Around 3 liters per day). Dehydration predisposes to altitude sickness.	Be tempted to drink alcohol. (one can drink while coming back, that is, while descending)
3. Let the doctor know if you are taking any medicines.	Take any sedatives.
4. Let the doctor know of your previous illness/ surgeries etc. (they might need to prepare the medications accordingly)	Try to just push yourself. Courage displayed at inappropriate occasions is foolishness, not bravery!
5. Stay warm.	Take classic baths. (cold predisposes one to AMS, HAPE)
6. Accept your susceptibility to AMS.	Assume that you would be struck the last.
7. Be prepared to stay behind or return back earlier than the group if you have bad altitude sickness.	Be very religious and tough. 'Victory is not reaching the top but coming back alive'.
8. Understand that you are in an unprivileged situation and things can be less than expected.	Get frustrated.
9. Report as soon as possible to somebody who knows.	Present late
10. 10. Don't leave a trekker behind in your group with someone who does not speak the trekker's language.	

But sadly not everything up there is picture perfect. The mountains are not hostile but ignorance about the proper way to travel have left many pilgrims with a rather unpleasant memory, some even close to losing their lives.

And to be able to help these people is in itself a gratifying opportunity.

In response to HRA's request to provide medical doctors and medical students to run a temporary health camp in Goshain Kunda, MMSN appointed Dr Ramesh Subedi and Dr Bhupesh Khadka as medical doctors and Mr Matiram Pun and Mr Surendra Khanal as medical students to go to Goshain Kunda.

The Goshain Kunda Health Camp team comprised of the following members:

From MMSN:

Dr Ramesh Subedi

Dr Bhupesh Khadka

Mr Matiram Pun

Mr Surendra Khanal

From HRA:

Mr Narahari Bhandari

Mr Bikram Neupane

Mr Govinda Basyal

Mr Khagendra

Mr Kiran Rai

The team left Kathmandu for Dhunche on the wake of the upliftment of a week long Naka Bandah, on 8th of Bhadra. Three days of exhausting yet exciting trek brought the team to the lap of the holy lake, where they were surprised to find they were the only team this year to set up a health camp, unlike yesteryears when the Army and other organizations also used to set up their respective health camps. Now the whole responsibility of attending the pilgrims lay on our shoulders.

During three days in the Goshain kunda, around 300 patients attended the health camp, seeking health care for various ailments. A primary data of different variables of all those attending the camp was taken (the details of which is available on the report booklet), which revealed around 8-10 serious cases of HACE, who after receiving IM Dexona and Oxygen were taken lower to safer altitudes.

More than 80% of patients attending the camp gave a history suggestive of AMS (which ranged from mild to severe cases).

Besides this, service was also provided to cases of acute gastroenteritis, trauma and other general medical problems.

An important highlight of our trip was giving continuation to the previous year's research of children in the GK, wherein we collected data from more than 50 children attending the festival.

16th of Bhadra saw the team safely in Kathmandu.

Is there a genetic basis for the adaptation of Humans to high altitude?

Dr. Amit Arjyal & Dr. Anil Pandit

Our country Nepal is an amalgam of various races and ethnic groups. But we must realize that apart from the big cities and towns, our populations are not so homogeneously scattered. Rather, if we look at the distribution of our peoples before the significant migrations that have occurred in the last fifty to seventy years, we can recognize a specific pattern. This pattern can be correlated with the geographical attributes of each place. Take for example, ethnic communities like the *Tharus* who have thrived in deadly malarious Terai (the low lying plains in the southern part of Nepal) where hill-bound groups like Brahmins and Chhettris, dared not go before the advent of DDT, deforestation and as a result malaria control which began in the 1950's. Likewise, if one goes up north and reaches the mountainous altitudes above 3000 m, scarcely will he find a *Khas* or *Newar* village.

Of course, our country has not suffered human habitation since the beginning of time. Each of the various groups in our country must have set foot here at different points in time. A fair question to raise here would be- Why did each of these groups choose their particular niche? Did the Tharus go on living in the Terai because the genetic traits they carry support their survival against fatal falciparum malaria? Do the Sherpas who reside in the high altitude locales of the Himalayan

foothills have genotypes geared towards adaptation to the hypoxic environment therein? Trial and error over centuries must have taught each of our various groups which location would be the best one for them. But, today with the advent of modern science, we are in a position to define whether or not the genetic characteristics in an individual are the reason behind him being suited to a particular environment.

It has been hypothesized that Sherpas might be physiologically different from the rest of us when it comes to gene products that enable survival at high altitude. Some of these are erythropoietin (EPO), endothelial nitric oxide synthase (eNOS), angiotensin converting enzyme (ACE) and vascular endothelial growth factor (VEGF).

Polycythemia is a compensatory mechanism to sustain oxygen delivery during life at high altitude. EPO, a glycoprotein growth factor regulates the rate of red blood cell production by stimulating the proliferation and differentiation of erythroid precursor cells. Molecular studies in vivo and in vitro have demonstrated that the accelerated EPO gene expression is the first step in the polycythemic response to hypoxia.

Nitric oxide, an essential endogenous vasodilator regulates pulmonary vascular tone and maintains physiological low pulmonary vascular resistance. An enhancement of NO synthesis may contribute to greater resistance to the hypoxic pulmonary vasoconstriction in high altitude pulmonary edema.

ACE plays an important role in regulating pulmonary vascular homeostasis and maintaining electrolyte and volume homeostasis that are supposed to be crucial pathogeneses of high altitude illnesses like HAPE and chronic mountain sickness. Pulmonary vascular compliance and permeability and other cardiovascular disorders might be associated with changes in the human ACE genes.

VEGF is a disulfide bonded dimeric glycoprotein. It is a potent endothelial cell specific mitogen and permeability factor known to be involved in vascular basement membrane destruction and angiogenesis. VEGF mRNA is markedly upregulated in vitro and in vivo in hypoxic conditions. Several polymorphisms have been identified in the regulatory regions of VEGF gene, leading to differences in VEGF expression in different individuals.

Perhaps Sherpas have sustained the beneficial mutations in their genes when it comes to the production of those substances, which has enabled them to survive at high altitudes. The day is not far when having understood the genes and their natural products necessary for high-altitude survival, we will be better able to cope with the disease conditions of extreme hypoxia encountered in a hospital or out-patient setting.

MMSN ACTIVITIES

MMSN Activities

1. One day Workshop on Mountain Medicine at Mohego Building (17th June, 2004)

This was the first workshop MMSN organized and enjoyed massive success in it. We had participants from NMC, KMC, Patan Hospital and Maharajgunj Campus. This was organized in consideration of impending South Asian Conference to be held in Kathmandu on 9th August, 2004. The speakers were Dr. Bhupesh Khadka and Mr. Matiram Pun (AMS), Dr. Ramesh Subedi and Dr. Baroon Rai (HACE), Dr. Nely Shrestha and Dr. Promish Shrestha (HAPE) while Dr. Pritam Neupane highlighted on "High altitude and common medical conditions". Dr. Anil Pandit and Amit Arjyal presented on the topic "Other problems in altitude that mimic altitude sickness". Prof. Dr. Buddha Basnyat guided and clarified the confusions throughout the interactive sessions. Mr. Govind Basyal, the senior medical person from HRAN also presented about the life and activities at altitude. He along with another HRAN staff also demonstrated the Gamow bag and stressed on its importance as well as technical know-how to use it. The welcome speech was given by Vice-president of MMSN Dr. Pritam Neupane and it was concluded with an

excellent piece of note on "How to Conduct a study" by MMSN president Prof. Dr. Buddha Basnyat.

2. The MMSN Newsletter (Vol. 1, Issue 1, July 2004)

The first issue of MMSN Newsletter was launched on 17th June, 2004 in the MMSN Workshop at Mahego Building, Maharajgunj. The issue was brought out under the editorship of Dr. Anil Pandit. This was one step forward for our academic activities that MMSN is supposed to be.

3. "Mountain Medicine: Sharing the South Asian Experience" at Hotel Marsyangdi in Kathmandu, Nepal (9th August, 2004)

The BP Koirala India-Nepal Foundation (BPKF), the Mountain Medicine Society of Nepal (MMSN) and the Himalayan Rescue Association Nepal (HRAN) jointly organized a one day seminar on "Mountain Medicine: Sharing the South Asian Experience" at Marsyangdi Hotetel in Kathmandu, Nepal. There were delegates from India, Pakistan and Nepal met in Kathmandu to share the medical problems in the mountains of the region. South Asia, no doubt, contains one of the biggest bulks of high altitudes-Hindukush, Karakoram and, of course, the Himalayas.

The seminar was inaugurated by His Excellency, Mr. V. P. Haran, Charge d' Affairs, Embassy of India and Co-Chairperson of BPKF. Prof. Dr. Buddha Basnyat, Medical Director of HRAN and president of MMSN, Dr. Nely Shrestha, Dr. Kaushal K.Sribatava, Prof. Emeritus at the BR Ambedkar Center for Biomedical Research, Delhi University, Delhi, Dr. Vidyasagar Casikar, the Head of Department of Neurosurgery, St. Johns Medical College, Bangalore and currently a consultant neurosurgeon in Australia, Dr. Thuppil Vankatesh, professor of Biochemistry and Biophysics at St. Johns Academy of Health Sciences, Bangalore, Dr. Pritam Neupane, the vice president of MMSN, Dr. Sudhir K. Jha, a graduate from Armed Force Medical College, Pune, and Dr. Abdul Jabbar Bhatti from Pakistan presented various papers.

The concluding session was facilitated by Prof. Dr. Buddha Basnyat and the topic was "How can we foster Himalayan research in Nepal?" The Chairperson of HRAN, Mr.Ang Kaji Sherpa, expressed his commitment to organize such seminars in the future as well. The MMSN is definitely going to play the leading role in such activities.

4. Goshainkund Health Camp - 2004 AD (30th August, 2004)

The Health Camp in Goshainkund is the regular programme of the Himalayan Rescue Association Nepal (HRAN). The joint medical team of HRAN and MMSN was sent this year. The principal objective was to help the pilgrims in the Janai Purnima Festival at Sacred Lake of Goshainkund. The team primarily targeted mountain sickness. Financial support was given by HRAN. MMSN members also assessed the prevalence of Acute Mountain Sickness (AMS) among the children (between the age of five and fifteen) with the help of Lake Louis Scoring System (LLSS) questionnaire.

5. Research on " Genetics and High Altitude" at Namche Bazaar (29th Bhadra, 2061)

Leading genetic research experts of High Altitude Diseases, Prof. Dr. Masayuki Hanaoka and Dr. Yunden Droma, from Department of Internal Medicine of School of Medicine, Shinshu University, Matsumoto, Japan, were in Nepal for the study of possible involvement of genetic polymorphism among lowlanders and high altitude residents. MMSN members Dr. Pritam Neupane, Dr. Anil Pandit, Dr. Dipendra Sharma and Dr. Amit Arjyal also took part in the study. They collected serum from the high altitude residents of Namche bazaar and from lowlanders of Kathmandu valley. The samples have been taken to Japan for genetic analysis.

6. Prof Masayuki Hanaoka delivered talk on possible genetic involvement in the High Altitude Diseases especially High Altitude Pulmonary Oedema (HAPE) (8th Mangsir, 2061)

The MMSN organized a platform for all here and Prof. Dr. Hanaoka in the Postgraduate Hall of Mahego Building at Maharajgunj Campus. There Prof Masayuki Hanaoka delivered a talk on possible genetic involvement in the High Altitude Diseases especially High Altitude Pulmonary Oedema (HAPE).

7. Journal Club of MMSN

The regular feature of MMSN is the journal club that is organized on first Wednesday of every English month at Basic Science Building.The following people presented the papers given there in different dates during this span:

- Dr. Ramesh Subedi presented the paper "Efficacy of Low-dose Acetazolamide (125mg BID) for the Prophylaxis of Acute Mountain Sickness: A Prospective, Double-bind, Randomized, Placebo-controlled Trial" by Buddha Basnyat et al published in High Altitude Medicine and Biology of Vol.4, No.1, 2003
- Dr. Anu Shrestha presented a review on "Gingko biloba Trials in the Clinical Medicine". The review was based on the article of Mosby's Drug Consult-2002, CD ROM. This was, basically, about the Gingko biloba vs Actazolamide

trial on Altitude diseases. She gave us a nice insight of Gingko. So this was educational rather than scientific journal club.

- Mr. Matiram Pun discussed the article "The Physiologic Basis of High-Altitude Diseases" by current icon of Respiratory Physiology John B. West published in Annals of Internal Medicine of "16 November 2004 | Volume 141 Issue 10 | Pages 789-800". This is the review by the legend of the field more than that it had three responses from Nepal- Prof Dr. Buddha Basnyat, Dr. Anil Pandit and Mr. Matiram Pun. Interestingly all three responses appeared in the print version.

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(Site Info)

Home
About Us: Introduction | History | Executive Body | Members | Aims | Objective
Activities: Contains Journal Club | Workshop | Conference
Mountain Medicine: High Altitude | Altitude Sickness | AMS | HACE | HAPE | Acclimatisation | Assesment of Altitude Illness | Treatment of Altitude Illness | Golden Rule for Ascent | Scoring System of AMS | AMS Worksheet
Mountain Destinations
Visiting Nepal
Travel Advice: Common Disease | Insect Bites | How to Keep Healthy | Immunization for Adult | High Altitude
Photo Gallery: Mountains | Health Camp | Workshop & Conference
News & Events: Past | Present | Future
Feedback
Site Map
Links
FAQs
Help Us
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Visit our website and get in touch with the world of mountain medicine in Nepal. One of our recent additions is the discussion forum. It was created to make a place where all interested people could learn and share their experiences related to mountain medicine.

8. Sleep Apnea Study at High Altitude (April, 2005)

There was one research going on about Sleep Apnea at High Altitude. Dr. Prajan Subedi from MMSN had joined it. He spent a week up to Everest Base Camp during the study.

9. Guest Lectures to Trekkers organized by HRAN on Altitude Illness and Hygiene (1st May, 2005)

As their regular feature, HRAN was running training program for porters and trekkers. They had asked two doctors to deliver lecture on Altitude Illness and Hygiene. Dr. Anil Pandit and Dr. Devish Pyakurel took class in Hotel Marsyangdi for trekkers and porters on Altitude Illness and Hygiene

10. MOUNTAIN MEDICINE: Nepali doctors' perspective (on 28th May,2005)

As the dynamics of our society changes, MMSN organized a conference to share the experiences of our members, to bring to light the research being done, the work at our health camps and the challenges faced by the workers, all Nepali health personnel working on home soil. A not-to-be-missed gathering!

Book Review

Dr. Sanjay Yadav

Doctor On Everest: Emergency Medicine At The Top Of The World-A Personal Account of the 1996 Disaster By Kenneth Kamler, MD. Paperback 320 pages, Publisher: Globe Pequot Press

Why climb Everest? Because its there. But what on earth would a medic climb Everest for? Because medics like anyone else find that its still there. Each adult's childhood aspiration of being on top of the world that is. Dangers in the mountains are the reason not to climb it but it's also the reason to climb. In Kenneth's words 'You become a keen observer of nature's grand design and quiet nuances; meeting through challenges that are sharply in focus is just energizing.' Working as an expedition doctor you probably see this happening at close shaves.

Dr Kamler is an orthopaedic surgeon in New York and specialises in microscopic hand surgery. Imagine the next moment he is an expedition medic making the most difficult decisions of what takes human body and mind to function at soaring altitudes and saving lives at the gruelling conditions to aid survivors crippled to destinies of AMS, HAPE and broken bones. Kenneth has never made it to the summit although attempted on four occasions with the expedition teams. Each time as his dream crashes he comes closer to 'His Everest' and scores so personal and poignant triumph of 'there's more than to summit'.

Told through the eyes of climber himself with loyal dreams of climbing Everest and yet dedicating his unfathomable compassion to attend the fallen warriors, this punishing recount is an egoless verbalisation of emotions falling apart that ruggedly looms large into his writings. Thoroughly entertaining and a real page turner, his is an arduous effort to narrate everyday details like the fact that he used sanitary napkins to keep his underwear clean, describes a dinner at teahouse where a Sherpa girl with runny nose is able to carry five cups of tea to the table at the same time by placing one finger in each cup and later the tormenting ironies of finding a melting chocobar in his pocket between the sighs of hunger pangs and periodic breathings all amidst the chilling awareness of yourself messing in the heights of physiological extremes. But he stands 'American Dr Sab' in the eyes of all alike.

Do you fancy mountaineering a media to portray an escapist on social crossroads? Where's the dividing line between first hand frailty of human body where nature is at its cruel best and human body so unaware of it? Negotiating his dual role as medic and climber, Kamler portrays base camp at the social crossroads depicting the elaborate picture how unceremoniously it blends modern fabrics, commercial gears and hi-fi intercom devices while at the same time nourishes stingy yak dung, juniper smells from the altar and the incessantly fluttering prayer flags. And the line lies thin when you run a veritable Emergency Room where all medical supplies came in by yaks and you are an observer to the taxing trauma each passing moment left to the twists of the fate.

It's a real life drama, a grisly account of medical disaster in wilderness that graphically reads like a fiction .Dr Kamler does not sound stylist in his literary capacity but onerously finds humour in the tell tale of one doctor and you would wonder at times if he has pot-boiled a pretentious fictive of a God- player making all things right until you close your eyes in refuge to empathise the physical pain and frustrations of high altitude climbing from your cosy armchair read.

Although not specifically about the events of 1996, it illuminates new firsthand anecdotes beyond Jon Krakauer's 'Into thin air' and should be a follow up if u have already read one of the Everest disaster books. Kamler offers it with unique perspectives of human emotions, exploration, adventure, the thrill of victory and agony all served in one menu. The cliff-hanger saga and glorious accounts of survival in amidst abandonment and staggering recovery: this is every climber's mouthful appetizer, but if you are also an avid mountain medic it should be an icing on the cake. An interesting read!