

## 28th Pelikán's Seminar "Current Topics of Mountain Medicine 28-29<sup>th</sup> 10. 2017



The Medical Commission of the Slovak Mountaineering Association, The Medical Commission of the Czech Mountaineering Association together with The Czech Society for Mountain Medicine organized on 28th - 29th October 2017 the "28th Pelikán's Seminar". This traditional meeting is a unique opportunity for those who are interested in mountain medicine to meet and share their experience. For the third time the event was held in Slovakia; this time in "Mala Fatra" mountains, in a cottage called "Vo Vyhnanej" (translated: "In Expellation"). In 2017, we celebrate the 25<sup>th</sup> anniversary of the Czech Society for mountain Medicine.

The symposium was opened with a welcome speech held by Dr. Ján Kořínek, the chairman of The Medical Commission of the Slovak Mountaineering Association and by Bc. P. Muráň, a member of the Mountain Rescue Service in Mala Fatra. Also, the president of the

Medical Commission of the Czech Mountaineering Association, Dr. Jana Kubalová opened the meeting with several words and she thanked to her Slovak colleagues for organization of this event.

1. **Dr. Jana Kubalová** was also the first speaker of the day giving a lecture called ***Thrombophilia in past medical history and high altitude***. She presented a case of a lady, who had problems with acclimatization in the past and moreover, she suffered from Leyden mutation, vasculopathy and thrombocytopaenia. Dr. Kubalová was contacted by this mountaineer to provide a consultation before her planned trek to Himalaya. Information sources about this problem are scarce and only a few guidelines exist. It instigated an inspiring discussion within the audience. At the end, we found out, that the trip went well, without any complications.



2. The second speaker was **Dr. Kristina Höschlová**, who prepared five lectures in total. First of all, she summarized the guidelines for ***Consultation before a trip to mountains***. Kristina emphasized the fact, that the spectrum of mountain tourists has changed a lot in recent years and there are more and more of those who travel to the high-altitude environment with a significant past medical history. She suggested a comprehensive method of providing this consultation. Firstly, we should give some

basic information about the risks and specific high altitude related health conditions. Secondly, all personal health issues should be addressed, including dental check. Thirdly, a prediction of an individual risk of acute



mountain sickness can be done for instance by the "Richalet hypoxia sensitivity test" which she is trying to introduce in the Czech Republic. Last but not least, chronic comorbidities of the tourists need to be bared in mind and according to the newest recommendations, minimal changes to their regular drug therapy should be made.

3. Following that she mentioned some interesting papers from the **IMS Medical Conference Brixen 2017 "Facts and myths about acclimatisation"**. Amongst others she highlighted the female sex and migraine as a newly recognized risk factor for development of AMS.

## IMS Brixen 2017



4. **Psychiatric patient in high altitude** was another interesting presentation prepared by **Dr. Kristina Höschlová**. Apart from summarizing all know data regarding tourists with mental problems traveling to the mountains, she also introduced a unique French project which she had participated in. From a group of pre-selected patients, one female with a complex psychiatric diagnosis participated at the end.

After many months of physical and technical preparation under an UIMLA mountain guide and a mental health nurse in one person, she successfully summited on Dome des Ecrins (4015 m). A progress of her illness was evaluated by standard tests with conclusion, that her anxiety and depression symptoms improved and also her medication could have been reduced. On the other hand, during the project, the patient developed dependence on outdoor activities and after ceasing of the training, we might see a rebound phenomenon.

### PSYCHIATRIC PATIENT GOING to the MOUNTAINS

KRISTINA HÖSCHLOVÁ\*  
DOROTHÉE BERGUET\*\*

outdoor activities and after ceasing of the training, we might see a rebound phenomenon.

5. **Frostbite - updates** was a lecture prepared by **Dr. Kristina Höschlová** using the newest guidelines published by Dr. Emmanuel Cauchy and his team. She presented a case of a man who suffered stage 4 frostbites on both hands. Patient underwent treatment with IV prostacycline rapidly - just 4 hours after the event. Surprisingly, there was no amputation needed consequently. Kristina also summarized the current recommendations and emphasized the need for rapid evacuation of the victim from the hypoxic environment, using either rapid transport measures, or temporarily the use of the Gamow bag. Especially, the problems related to vasodilation treatment in the Czech Republic (payment, indication criteria, etc.) opened a very lively discussion.

### OMRZLINY



6. Lastly, **Dr. Kristina Höschlová** gave us some interesting information about the second **Mountain Medicine Course** organized by herself in our country. In the year 2018, the participants can look forward to attractive internships in the Alps. She also presented a book called "Lékařem mezi nebem a horami" (transl. "**Doctor between skies and mountains**") which she published recently.

7. **Dr. Jaroslava Řihová** continued with the cold injury topic with her lecture **Frostbites again – new perspectives**. Besides other facts, she presented a case of a man who spent a night in woods in Central Bohemia because of a loss of orientation. He had excessive frostbites because the outside temperature reached minus 16 degrees Celsius and many of his fingers and toes had to be amputated. This case report highlighted the current situation in some Czech hospitals where a compliance with the newest frostbite guidelines is very poor.



8. **Pyrenees in the summer** was a story told by **Dr. Igor Hermann** using his amazing photos.



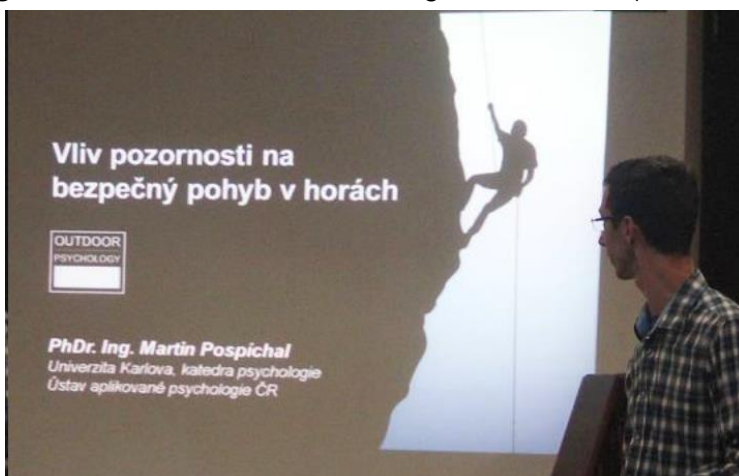
9. After lunch there was a practical demonstration of transport and rescue tools used by the mountain rescue service in Mala Fatra. A company Selvit Žilina showed us some new medical equipment suitable for pre-hospital care. Dr. Lenka Horáková postponed her practical workshop about Kinesiotaping into the late evening hours. Nevertheless, many people came to see this technique and tried it on themselves.



10. The afternoon block was started by **Dr. Jiří Žák**, who is a lawyer co-operating with The Czech Society for Mountain Medicine. He prepared a template of **A contract for an expedition doctor**. He gave us an advice about the fundamental parameters of each of these contracts, including the responsibilities of the expedition doctor, of the trip organizer and of its participants. This document should contain some important annexes, as the list of the travelers and a signed information regarding the expedition and about health condition of each of them. There are still many unanswered questions which need to be discussed.



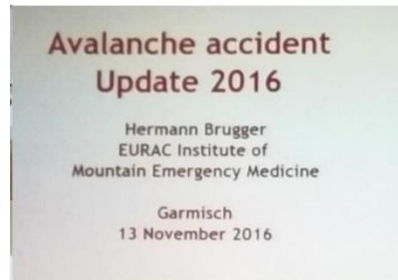
11. The next lecture was delivered by **PhDr. Ing. Martin Pospíchal** and he concentrated on **The influence of alertness on safety during mountain activities**. According to the OEAV (Austrian Alpine Club) statistics, the most frequent cause of an injury in the Alps is a decreased level of concentration. There are many factors influencing our alertness; for instance fatigue, restricted view by our goggles or oxygen regulator, disrupted circadian rhythms, austere environment, stereotypic movements and some pathophysiologic circumstances as pain, hunger or dehydration. Martin also suggested how to avoid some of these risks because although they don't look that harmful, more of them together can lead to tragedy and we should not underestimate them.



12. A traditional block about avalanches was commenced by **Dr. Jan Pala, PhD** with his **Analysis of several avalanche accidents with an application of the multiburial research method and the possibilities of the use of avalanche airbag backpacks**. He presented statistics from Switzerland where they managed to record more than 1200 avalanches in the last 76 years. In the past, most of the victims were buried in buildings or during work; nowadays, mostly skiers and mountaineers belong to the casualties. Like every year, Dr. Pala analyzed recent accidents, their causes and the role of the avalanche equipment.

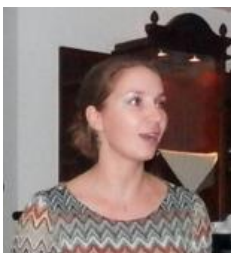
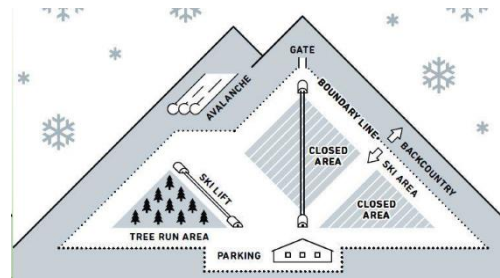
13. **Dr. Tomáš Strachota** continued with his **Avalanche medicine - up to date**. He summarized the newest guidelines published in the year 2015 by ICAR-MEDCOM and also communicated recommendations

issued by the Tyrolean rescue service: if a group of ski-mountaineers release an avalanche, they should always give a notice to the mountain rescue service, even though there is no one buried/injured. The reason is, that this avalanche can be spotted by other mountaineers and they might activate the rescue team unnecessarily.



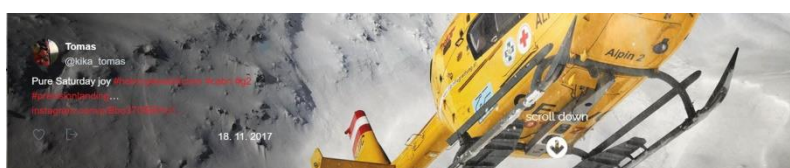
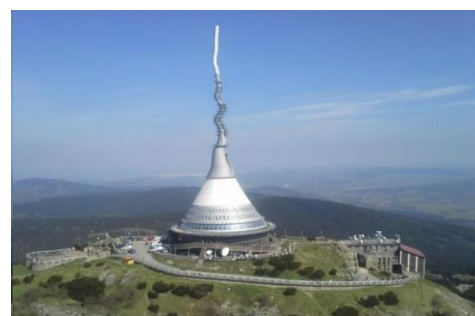
14. Still in winter mood, **Ing. Mgr. Karol Korhelík, Ph. D** presented interesting statistics describing **Injuries during downhill skiing and snowboarding** from a ski resort Snowparadise in “Veľká Rača”, Slovakia. As a part of their research, they try to monitor the most dangerous places in the area with the aim of preventing accidents. There is also a map available which shows all recognized risky spots.

15. The last lecture of the first day took us to Japan: **Dr. Jan Pala, PhD** recounted thoroughly **The safety and risks during freeride and ski-mountaineering activities on Japanese islands Honshū and Hokkaido**.



16. Sunday morning was opened by a lecture delivered by **Dr. Lenka Horáková** who concentrated on **Hobby climbers as a phenomenon of nowadays**. She mentioned that most of the injuries we see in these athletes are caused by summarization of numerous smaller traumas, sometimes even from their previous sport activities. Lenka presented several practical examples of wrong technique and habits which can contribute to it.

17. A block about pre-hospital care and mountain rescue was commenced by **Dr. Eva Tauchmanová: A careful transport in a difficult terrain**. First of all, she mentioned the three main strategies of field medicine, which is scoop and run, stay and play or treat and go. Moreover, she emphasized the fact that the lethal triad acidosis+coagulopathy+hypothermia can pose an imminent threat to a victim in a dangerous terrain. Apart from her wide experience from pre-hospital care, she reflected some observations from a workshop held during the Mountain Medicine Course, where the participants had a task of extricating a climber post a 6-meter fall from a rock. The most important thing they learnt was that it is easier to manipulate with the gear than with an injured person. This lecture opened a very vivid discussion.



18. A similar topic was presented by **Mgr. Tomáš Kika** who familiarized the audience with **PELIKAN 1&2 - Rescue helicopter service in South Tyrol**. He described some technical details of their helicopters and equipment, including specially designed clothes. The main advantage of the Tyrolean air rescue system he finds in the fact that there are clear guidelines

technical details of their helicopters and equipment, including specially designed clothes. The main advantage of the Tyrolean air rescue system he finds in the fact that there are clear guidelines

helping the co-operation among all the teams from the integrated rescue service - they have the same methods, the same sign language, the same gear. Moreover, they organize numerous practical trainings in real areas of previous accidents.

19. Even **Ing. Juraj Rokfalusy** was speaking about a similar topic, namely about ***The influence of the technical and organization changes on mountains rescue***. His lecture was based on



calculations done by Dr. Igor Miko who presumed that in the year 1985 during an accident in High Tatras it took approximately 9 hours until the handover of a patient to the hospital after a serious fall. The first aid he received maybe 5 hours post his injury. Thirty years later, in 2015, to another victim a medical treatment was given just after an hour since a tourist got hurt and he reached a hospital another hour later. Nowadays, the whole rescue operation takes as long as only the

notification to the mountain rescue service in the past. "The golden hour" of the emergency medicine is moved to the field and it is more demanding for the (para)medical teams, in terms of both the equipment and the knowledge. This statement opened a heated debate regarding the current curriculum for paramedics in the Czech Republic and Slovakia.

20. The last speaker was **Bc. Ján Kušnirák** who told us about an interesting case: ***There is always hope (a case report of a co-operation among the members of the integrated rescue service)***.

He described a story of a missing man on "Končistá," High Tatras. After 38 hours he was found alive, but injured under a rock wall by a specially trained dog. With serious trauma, he was transported to hospital in Poprad and in a good state of health repatriated back to Poland after 14 days. Ján summarized all the positive factors which helped to save his life, amongst others the good weather, the early notification of the rescue services by his mother, that he mentioned his planned summit and also a very good collaboration of all the teams who participated on this operation.



**Tam kde iní, dobre trénovaní, rozmýšľajú ako prežiť, my rozmýšľame ako ich odtiaľ dostať...**

Rescue Day Poprad 06.02.2015

[http://www.zachranaoz.sk/wp-content/uploads/2014/11/3\\_Kušnirák.pdf](http://www.zachranaoz.sk/wp-content/uploads/2014/11/3_Kušnirák.pdf)



★ *"Where some well-trained contemplate how to survive, we think about their rescue"*

In this optimistic mood, Dr. Ján Kořínek concluded this year's seminar and expressed his thanks to all participants and speakers. Dr. Jana Kubalová invited everybody to the Czech Republic for the next symposium, the 29th Pelikán's seminar which will take place in Liberec region on 26th-28th October 2018.

Lenka Horáková with Jana Kubalová,  
Medical Commission of the Czech Mountaineering Association and Czech Society for Mountain Medicine

**[THE SELECTED PRESENTATIONS ARE AVAILABLE ON THE CZECH SOCIETY FOR MOUNTAIN MEDICINE WEBSITE](#)**