Enteritis during mountaineering above the snow line
– how to practice prophylaxis?*

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Key words: diarrhea during mountaineering, infection by melted snow and gloves, hand-disinfection during mountaineering

Introduction: A previous study [4] showed: diarrhea by faecal bacteria under difficult hygienic conditions above the snow-line appertains to a typical problem in mountaineering. To prevent reinfection with bacteria from faeces, usually snow water was boiled or disinfected chemically. A specialist of hygiene [3] argued, however: The danger of infection by the own hands could be more important than it of infection by melted snow. Therefore disinfection of the hands would be very important.

Aims: 1) Check melted snow and gloves: Coliform bacteria etc are an indicator for faecal contamination. 2) Check practicability of hand disinfection in high altitude.

Methods: 1. Bacteriologic check of melted snow from the Muztagh Ata region (Kunlun-mountains – brought by B. HONKA, [2]): 4 steps between 4400 and 6800 m, 25 snow specimens, each. 2. For comparison: 3 specimen of melted water from Kleinwalsertal (touristic region with many restaurants, cottages etc, 1500 m). 3. Bacteriologic check of a pair of gloves, used 14 days before during mountaineering. 4. testing typical hand-disinfection with alcohol tampons.

Results (preliminary, [1]): In 21 of 100 Kunlun specimen coliform bacteria or E. coli were found, the higher, the lesser. In the other 3 specimen: No faecal bacteria. Also in all fingers of the gloves faecal bacteria were found. The use of typical alcohol tampons under mountaineering conditions was not practicable, especially caused by the additional cooling effect.

Conclusions: The exemplary results show already, that a relevant part of the melted snow (Kunlun) and all fingers of a pair of gloves were contaminated with faecal bacteria. To prevent reinfection of enteritis, melted water should be disinfected further on. Reinfection by gloves – until today not discussed – seems to be a relevant problem, too. The classic hand-disinfection is not practicable, especially caused by the additional cooling effect.

References:

2) Viertes Höhensymposium, Bohinska Bela 2009 siehe:
http://www.uni-mainz.de/FB/Sport/physio//4HoehenSymposiumMZerBeitraege09.html

Acknowledgment: The authors are very obliged to Mr. B. Honka (Deutscher Alpenverein, Section Mainz) for collecting snow-probes in the Himalaya region as well as to Mr. O. Schneider (Deutscher Alpenverein, Section Wiesbaden) for his support in the Kleinwalsertal.

*first results of a Staatsexamensarbeit, Johannes Gutenberg-university Mainz