

A Brief History of Altitude Medicine and Highlights of Tibetan Medicine

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It had been known for centuries that visits to high altitudes caused illness, but little was known about its aetiology. Mountain sickness, or *puna* of Latin America, caused headaches and breathlessness. Sometimes people died.

Angelo Mosso (1846-1910) studied effects of altitude in his laboratory on Monte Rosa (4434m). From Turin, Mosso first read medicine and later became professor of physiology (1879). A boffin, a royalist, entrepreneur and a genius, he invented instruments to measure the circulation and respiration at altitude.

From the autopsy on a doctor who had died on Mt Blanc in 1890, Mosso noted "oedema of the lungs." He also devised ingenious experiments on patients with previous skull defects to measure the intracranial pressure. He wrote *Life of Man on the High Alps*.

Mosso's findings were unknown to the north American climbing doctor Charlie Houston (1913-2009) who led the US team to K2 (8611m) in 1953. The expedition failed, and following the death of his friend Art Gilkey (b.1926) Charlie never climbed again.

Houston devoted himself to altitude medicine. He published in 1960 *High Altitude Pulmonary Oedema*, and in 1975 described *Cerebral Form of High Altitude Illness*, both of which Mosso had considered. These observations were a leap forward in chronic hypoxia research that led to our understanding of the failure of the pulmonary, cerebral and retinal circulations at altitude.

Finally, some highlights of 17th century traditional Tibetan medicine will be described.

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