

A Medical Note on Significant Cases during the 19th Expedition

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In every Antarctic Expedition, members are involved in hazardous operations on the ice shelf, in mountains and around the station. Scientists, who are unaccustomed to manual labour, are required to participate in heavy cargo loading-offloading occupation. Chances of injury are always high and both the doctors of the expedition team attended to many minor cases of cuts and wounds. Apart from injuries, routine cases of sleep disorder, dyspepsia, diarrhoea, fungal infections, frost nip were treated. During the wintering period, 6 significant cases were encountered:

1. In April 2000, there was one major injury during the cargo handling activities. A convoy of vehicles had gone to the ice shelf, about 100 km away from the station. While handling fuel, one member slipped off from the top of an oil tanker and fell flat on the hard surface below of compacted snow and ice. He could not get up and the fellow members of the convoy suspected a spinal dislocation. The doctors were informed on the radio and the patient was rushed back to Maitri by a 12 hour-long drive. Since the ship had left, and the winter had set in, there was no hope of any evacuation of the patient. The doctors and the team faced a grim prospect of nursing a paralyzed patient, till the arrival of the ship, some 10 months later! The patient was received at Maitri with due precautions and a thorough medical examination, including the X-rays, was conducted. Fortunately, it turned out to be only a case of severe blunt injury of the sacro-illiac joint, without any fractured disc. The patient was bed-ridden for two months but gradually responded to conservative treatment. By the time of arrival of the next summer team, he was fully fit and mobile.
2. Another member of the convoy team, while working near the vehicle workshop of Maitri station, got a crushed hand by a swinging door during a strong gust of wind. Luckily again, there were no fractured

fingers and only some stitches and subsequent dressing of the wound sufficed. The patient was forced to avoid all outdoor exposure for many weeks thereafter.

3. The cook of the team was suffering from a medium sized fibrous tumour in the chest, which caused him quite a lot of discomfort and pain. It was operated upon in a minor surgical procedure, requiring follow-up dressing for the next one month. While the doctors attended to the cook, all the team members sportingly took up the cooking duties, by rotation.
4. One case of perennial anal abscess was reported. On examination, surgery was ruled out and the patient was treated conservatively.
5. One member suffered burn injuries on the neck, while handling some inflammable liquid chemical. His recovery was slow, necessitating about two months of dressing.
6. The lone satellite terminal of the team crashed during a blizzard in the peak polar winter of May 2000. There was no link with the mainland and the members were completely cut off from their families. The chances of repairing a satellite terminal were quite bleak and the prospect of remaining in absolute isolation, utterly separated from the whole civilization, till the arrival of the next ship in January 2001, was staring in the face of all the members. It was a great testing time for the entire team. But even under this extreme stress, the team members maintained a stubborn determination and not a single person needed any tranquilizers or counselling. The persistence of the team finally paid off, when after many trials with various sub-systems of the satellite terminal, the communications team from DEAL achieved a breakthrough, and at least the telephone link was restored. This fragile lifeline held on till the arrival of the next ship and the team triumphantly passed through a great psychological trial.

Apart from these cases, the team crossed the entire wintering period smoothly, attending to all the tasks and achieving their targets. A regular medical-lecture series was organized by both the doctors, sensitizing all the members about various nutritional and precautionary aspects as applied to living in the Antarctic. This resulted in more regular intake of supplements and precautions against the cold and the wind. A system of regular supplies of a variety of sprouted grains and legumes was initiated in the station kitchen by this team, to compensate for the absence of fresh fruits and vegetables. This healthy fad spread to most of the team members and contributed to their well-being. It is heartening to know that subsequent teams are following this healthy practice.

Our team was lucky in having a former national level body builder, Mr S. Venkateshwara Rao, as a wintering member. His initiative, supported by the Station Cdr, established a small but fully functional gymnasium in the station. All the members were motivated to take up some regular exercise and most of them responded positively. The gym contributed immensely towards the physical and mental well-being of the team. It is recommended that a gym should be a mandatory feature of wintering in Antarctica.

Medical care was also provided to the crew of the ship. Most of the cases were of injury, skin infections, allergic rashes and digestive disorders. It was noticed that cases of skin irritation and skin infections were more prevalent on the ship; perhaps due to rusting of water tanks and pipelines. One minor facial surgery was performed on the Ice Pilot of the ship, during the return voyage.