

Medical Report of the 25th Indian Expedition to Antarctica

Dr. (Mrs) Devyani D. Borole

National Centre for Antarctic and Ocean Research, Goa

The Medical Services at Maitri Hospital was taken over on 12th February, 2006 from Dr. Bandopadhyay, in-charge of Medical Services of XXIV ISEA. After making inventory of available stocks the new stock brought by the XXV ISEA were added. During the summer as both the Wintering team were present there was heavy pressure on medical facilities, attended to dermatological problems like tineacapitis, tineacruris, dryness of skin, seborrhea, indigestion, cold, cough, hypertension, wax in the ear, constipation with hemorrhoids and joint pains backache and boils, minor injuries, arthritis, etc.

A detailed plan was devised to have regular check for the entire team from the month of March, 2006 for any health and psychological problems. Initially a detailed clinical history of all the members was prepared with general checkup of cardiac, respiratory, abdominal, oral, neurological and mental condition. It required biochemical, pathological and diagnostic tests such as Blood sugar, X-rays, ultra sonography, ECG etc were carried out. Necessary preventive counseling was done to maintain good health in Antarctic conditions; it was made mandatory for all expedition members to undergo periodic tests such as blood sugar, ECG. All members were advised to work out in Gym and to have a control on their diet. All expedition members were explained the necessity of taking prophylactic multi-vitamins, calcium, iron supplements etc and the consequences of their deficiency.

Medicines were stored as prophylactic medicines, general use medicines and emergency medicine. Medicines requiring cold storage were stored in the refrigerator. The general and day to day use drugs were arranged in MI room.

The prophylactic drugs were distributed on monthly basis to all expedition members during routine medical checkup.

An emergency drug trolley was prepared with emergency drugs, necessary minor surgery instruments, a bed, ultra sonography machine, ECG machine, sterilizer and an oxygen source etc.

A First aid medical kit was separately allotted for Convoys with necessary training to Capt. K. Kingston & two convoy members. It was checked & updated after every Convoy.

All the diagnostic equipments were periodically checked & maintained.

All the expired medicines amounting to 8 crates were back loaded for India with other materials. The Dental chair which was lying unused in the operation theater was brought to MI room after repair and was put to use for the examination & dressing. X-Ray machine was serviced & kept ready for use. A proper Dark room to develop X-Rays was created in the Operation Theater complex and all the needed material have been stored. Flooring of the Operation Theater was renovated after it was destroyed in the past by a fire from electric heater. The Dental Chair was shifted to M.I. room as it is convenient for examination & dressing of the patient in the sitting position.

During the Second Monthly medical checkup it was found that 20 expedition members had significant weight gain. Of these 6 were found to have developed mild hypertension, 1 had severe hypertension (blood pressure being 170/120 mm of Hg) and had to be started on Anti-hypertensive medication to bring down the blood pressure. They were advised to reduce weight, restrict salt and relaxation to control the blood pressure, all these persons were being closely followed up and their blood pressure was checked daily. Besides the periodical examinations team members were encouraged to avail the medical service available whenever required. And to confide with the doctors however small problem may seem. For the period 13th February till 30th April the total 160 visits to the MI Room were made.

Members were advised to visit Gym on regular basis. Capt. Kingston took the responsibility of Gym in-charge & instructor. The Gym facilities were utilized well by the participants.

On mutual basis medical facilities were shared with Russian Station. Russian doctors had sought Anti Hypertensive medicines and Anesthesia drugs were supplied to the Russian station.

The following case report needs special mention.

On 1st April around 09:00 at Sankalp point when the trailer was being hooked to the Piston Bulley vehicle Nb/Sub Mangesh Ganapat Chavan sustained crush injury of the left hand. The injury was attended immediately and with X-ray report, revealed fracture dislocation of the 5th metacarpal at the base with medial displacement of the long distal fragment, seen overriding the base of the 4th Metacarpal bone. In view of fracture & dislocation of the bone of the hand with displacement in borderline range, it was decided to seek second opinion of the doctors from Russian station- Novo. There he was evaluated by Dr. Dimitri Lebedensky (Surgeon) & Dr. Andrei (Anesthetist). After physical & radiological evaluation, it was decided that the wound closure by primary intention to be done & closed reduction of the fracture to be attempted under local anesthesia. Accordingly wound was closed.

In all 18 stitches were required and plaster of paris cast was given. After 10 days stitches were removed and patient was operated for fracture of 5th metacarpal bone by nailing it at Russian Hospital. Patient's condition is better & his improvement was very fast. All the medical treatment & dressing were done regularly at Maitri. On 14th September extraction of the nail was done at Novo Station. Since then the patient came back to normal and was able to attend all routine works including participating in the regular convoys in the harsh and hostile weather conditions of Antarctica.

All other problems were minor and were treated at Maitri.

Seven members at Maitri on 1st week of March, suffered from food poisoning all cases recovered with medication. Cause of it was consumption of curd made from old stock of milk powder. Such items were immediately removed which prevented the recurrence.

Other minor cases of chill burn due to working in extreme cold weather, minor cut injuries, backache, skin infections like dandruff, tineacapitis, tineacruris, seb dermatitis, wax in the ear, eye irritation, headache due to hangover. Nail infection were also treated.

Dr. Dhanraj Patil's unstinting support & contribution were highly useful in running the medical facilities at Maitri during the expedition. The morale of the all team members remained high and there was no case of any psychological problem.

The ailments encountered at Maitri along with number of cases are given below:

Tineacurris	-	20
Food poisoning	-	10
Hypertension	-	11
DiabetesMellitus	-	2
Alcohol withdrawal	-	1
Backache	-	12
TineaCapitis	-	12
Constipation	-	8
PID	-	1
Seborrhea Dermatitis	-	2
Acidity	-	34
Tennis Elbow	-	4
Cold injury	-	3
Vomitting	-	6
Myalgia	-	6
Frostbite	-	5
Piles	-	5
Bodyache	-	28
Allergy	-	11
Pain	-	4
Headache	-	13
Minor Burns	-	7
Diarrhoea	-	9
Fracture	-	1
Cuts,Abrasions	-	13
Dysentry	-	2
Welder's Eye	-	2
Ultra violet injury	-	2
Abcess	-	1



Dr. Borole attending to Nb/Sub Magesh Chavan injury



**Nb/Sub Chavan playing Dholak for the Doctors after complete recovery
(Left to right, Dr. Patil, Dr. Borole, Dr. Tsvetkov, Shri Vijay Kumar Cook
Dr. Lebedinsky)**



Dr. P.S. Goel visit to the Maitri Dispensary along with Shri Prakash Kumar (Red Jersey), Dr. Borole and Dr. Patil



Dr. P.S. Goel visit to the Maitri Operation Theater along with Shri Prakash Kumar, Dr. Borole and Dr. Patil