MORE THAN JUST A PINCH : IODISED SALT IN ARMED FORCES

Dear Editor,

Maj MP Cariappa has brought out certain interesting facts in his reply [1] to my letter [2]. However, the basic questions are :

- Do the soldiers need iodised salt?
- If No, why should we force them to consume it?
- Will the adverse effects of this forced consumption of excess iodine be attributable to service?

The rigorous medical examination prior to recruiting, weeds out all those with iodine deficiency. Frequent turn over of troops to various parts of the country ensures that the individual does not stay for long in "the area environmentally deficient in iodine" and be prone to iodine deficiency. Good balanced diet provided in the Armed Forces meets all nutritional requirement of iodine without supplementing through salt. Under such circumstances the chance of iodine deficiency in a healthy adult euthyroid soldier, if any, is negligible. This is substantiated by analysis of our hospital records (Table 1). Only 15 cases of thyroid related disorders (8 serving soldiers and 7 dependents) out of more than 8000 admissions were admitted in our hospital in 1999. Amongst servicemen 2 fresh cases and 3 old cases of hypothyroidism, 1 goiter and 1 adenoma were seen. Incidentally, our hospital caters to the troops, ex-servicemen and their families staying in sub-Himalayan iodine deficiency belt! Incidence of iodine deficiency amongst the troops from other places too is expected to be similarly low.

"Good of the greater many at the risk..."[1] does not apply in Armed Forces as the greater many are NOT at the risk of iodine deficiency.

Under such circumstances, the effects of forced consumption of excess iodine through iodised salt in a euthyroid adult is likely to be more harmful than useful. This then becomes directly caused by and

attributable to the service conditions.

TABLE 1

Number of cases of thyroid related disorders admitted in MH Bareilly in 199. (Total admission > 8000)

Diagnosis	Service-men	Ex-service men	Children	Other dependant	Total
Hyper thyroidism	01	01	—	—	02
Hypo thyroidism	05	—	01	01	07
Goiter	01	—	—	04	05
Adenoma	01	—	—	—	01
Total	08	01	01	05	15

The Govt of India is withdrawing the clause of compulsory iodination of salt. Preliminary notification to this effect has already been issued by the Govt of India [3]. Shouldn't the health planners in Armed Forces too realise this and prescribe iodised salt only for the people at risk? Views and comments of readers and concerned authorities are awaited.

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Lt Col S GOKHALE

Classified Specialist (Path & Micro)
Military Hospital, Bareilly.

MEDICAL COVER IN AIRBORNE OPERATIONS : RECOMMENDATIONS

Dear Editor,

The war scenario round the world has drastically changed as a result of the modernisation process. The importance of good medical support to the fighting troops cannot be under estimated. Conduct and planning of medical cover in Airborne Operations is markedly different from conventional warfare. Apart from the combat casualty rate being high 25% [1], the parachuting injuries ranging from 6-8.9% [2,3], which include medical personnel as well, affect the efficiency of medical cover in airborne operations. Heavy equipment also hamper the mobility which is an important aspect of such operations.

Various factors affecting medical cover in airborne military operations have been described in detail in the earlier edition of this journal [4]. Keeping in view the limiting factors in airborne operation, certain recommendations are made to overcome the problems:

a. Modernisation of Equipment :- The hallmark of medical cover in Air-borne operations is flexibility and light weight and ready to use equipment like :-

- Pneumatic Splint :** This is very light, handy, collapsible and be carried easily in a medical haversack. These are very effective in prompt splinting of limb fractures and prevent bleeding and infection and reduce pain. Thus these can conveniently replace bulky and cumbersome Thomas Splint and Crammer Wire Splints.
- MAST (Military Anti Shock Trouser) :** This collapsible item is very effective in preventing haemorrhagic shock and is being used by the American Army.

- Para Guard Stretcher :** It is compact, comfortable to the patient and easy to carry. It is ideally suited for airborne role by winching the casualty for helicopter evacuation. This can easily replace out-dated and bulky stretcher folding Air-borne.
- Scoop Stretcher :** This is foldable, light, adjustable according to the length of the patient and most comfortable for seriously injured patient eg. with spinal injury. These can be carried in adequate numbers without compromising on space.
- Body Guard Pack :** This sturdy nylon medical haversack contains essential ready to use first aid and emergency kit. This can be carried by medical personnel, some of the contents worth mentioning are :
  - Foldable nylon stretcher.
  - Emergency escape mask-for evacuation of gas victims.
  - Burn dressings
  - Bullet proof shield for protection against small arms fire.
- Modified Air-borne Shelters :** These days many versions of light weight, easily deployable, foldable shelters are available. They are made of PVC coated synthetic fabric and extremely easy to set up. Six men carry and erect tent. They are purposely designed facilitating erection, packing and transportation. Some examples of these shelters are :-
  - Trell Tent System.
  - DRASH (Deployable Rapid Assembly Surgical Hospital).
  - Swedish Field Hospital.

vii) **Survivor-Escape Hood** : It is portable, light, fire-resistant hood and offers complete protection to eyes and respiratory tract in any toxic environment and during special missions. This equipment has its own source of oxygen and inbuilt carbon dioxide adsorber and hence can be used in zero oxygen zones. There is increasing risk of nuclear, biological and chemical warfare in the modern battle field and the use of this escape hood is beneficial for the rescuer and the rescued alike.

b) **Selection of Personnel** : Due to the peculiar nature of airborne operations, it is imperative that the medical personnel chosen for such task are professionally competent, well motivated and willing to work under severe stress and strain. Suitable incentive to such elite forces will help in selection of better and efficient personnel.

c) **Selection of equipment** : Prepacked, self contained and ready to use equipment are ideal in such situations. Light weight nylon ruck sacks with side pockets will be a better choice for individual manpack. The details of the contents is beyond the scope of the article, but among the newer analgesics nalbuphine (20-30 mg) carried in springloaded self administration syringes needs a special mention.

d) **Casualty evacuation by air craft/helicopter** : Since, in an airborne medical set up the capacity to hold casualties is limited and in view of increased number of casualties. It is recommended that certain number of aircraft or helicopters be earmarked for casualty evacuation. But much will depend upon the air superiority and the tactical situation. Needless to say that it will have tremendous effect on the morale of the troops.

e) **Compulsory first aid training** : With the better standard of education and intelligence of present day soldier, more realistic training in basic life support measures and self application of medication, is needed. About 90% of combat deaths occur on the battle field [5] and 15-20% of these might be saved by expert first aid. Such life saving on the spot is more likely to be done by the comrade than a medical officer. The developments in the medical services in the field should run parallel to the changing pattern of warfare. The medical component of the elite airborne forces need to be given due priority which it genuinely deserves.

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Lt Col KC KHANDURI

Classified Specialist in Anaesthesiology
Military Hospital, Ranikhet-263 645.