Psychiatric Intervention in Amputees

Dear Editor,

This is the reference to the original article titled "Effect of short term psychiatric intervention in amputees" MJAFI 2004; 60:231-4 by Kashif et al [1]. It is heartening to note that medical cadets from Armed Forces Medical College are submitting original research. This should be encouraged.

I have the following comments/suggestions on this article:

1. The role of clinical-sub clinical psychiatric morbidity in recovery from musculoskeletal disabilities is receiving increasing attention from both researchers and clinicians alike. The authors have attempted to study psychiatric morbidity in the form of depression / anxiety. However they have missed out on Post Traumatic Stress Disorder (PTSD). Literature on psychiatric morbidity in trauma is reporting a high prevalence of PTSD in cases with chronic pain in musculoskeletal injuries [2]. In a study of patients with chronic musculoskeletal pain associated with work related injury, 34.7% had symptoms consistent with a diagnosis of PTSD [2]. This brings out a drawback in the study, that the prime cause that led to amputation has not been reported / analyzed. If the demographic data is any indication, a majority of the patients may have had amputation post trauma, and understanding the incidence of PTSD in such a group would have assumed significance.
2. The authors' state that instead of high incidence of anxiety as reported in literature, they found a much higher incidence of depression [1]. This may have to do with the stage at which the patient was evaluated. It is very likely that patients may exhibit much higher levels of anxiety in the initial stages, than after having reached a stage of clinical finality. Clinical implications of such a documented observation would be in the morbidity of treatment at the two stages of the individual's illness. May be they would benefit with anxiolytics in the

initial stage followed by antidepressants later?

3. The authors have brought out the demographic characteristics of the subject population. However, no comments have been offered on any correlation between these variables and the psychiatric morbidity. It would be interesting to know whether any of those, in particular marital status and education provided protection against psychiatric morbidity in such cases.
4. The authors have not provided any justification of using the MAST test. No comparison with any other similar assessment in literature is cited. What led them to believe that alcoholism may be a problem in such patients? Moreover, a detailed explanation of their findings would be in order, rather than just an assumption that it is simply being used as a medication for depression.
5. In my opinion, the findings of the study have much wider ramifications than considered by the authors. Psychiatric co-morbidity in musculoskeletal trauma should constitute an important research area in the Armed Forces Medical Services so that appropriate measures are adopted to minimize morbidity associated with severe musculoskeletal injuries, especially those that have major trauma as the underlying cause.

References

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2. Asmundson GJG, Norton RG, Allardings MD, Norton PJ, Larsen DK. Post-traumatic stress disorder and work-related injury. J Anxiety Disord 1998;12:57-69.

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Reply

We thank the authors for reading the article with keen interest, appreciating the work and sending expert suggestions.

Comments about their observations are as under:

1. The article was based on a short-term ICMR research studentship, among the first two ever completed by medical cadets in the Department of Psychiatry, Armed Forces Medical College. Since it was a time bound pilot study a simple design was preferred. It may interest the authors to know that it is only the second study in India (the first in Armed Forces which has a Artificial Limb Center functioning for over 50 years) in which psychiatric treatment of amputees was attempted. Despite a plethora of western studies showing high prevalence of PTSD in various populations, our own experience with patients with upper and lower limb fractures [1] as also troops in counter insurgency operation areas [2] showed a rather low prevalence. However we have an open mind and another department project is also looking into this aspect in amputees.

2. We agree with the authors' contention that anxiety may have been higher in the early stages. However, as we saw the patients later no comments about their status at an earlier stage can be offered.
3. In the present study probably due to small sample size no correlations with socio-demographic characteristics was observed.
4. Alcohol related problems are very common in Armed Forces not only in India but also all over the world and is probably one of the most under-diagnosed conditions in medical setting. In earlier studies we found high scores on MAST in patients with primary hypertension [3], duodenal ulcer [4], psoriasis [5] fractures of lower limbs in eastern command [6], lower and upper limb fractures in northern command [1] and troops in counterinsurgency operations [2]. This led us to use the MAST in amputees. We agree that this aspect requires further detailed inquiry.
5. We agree with the authors' opinion that psychiatric co-morbidity

in musculoskeletal trauma should constitute an important area in the Armed Forces. We have carried out a study on patients with fractures and polytrauma in counterinsurgency operation areas and a study to develop a comprehensive psychotherapeutic package for amputees. A departmental project exploring body image, PTSD and pain in amputees is nearing completion. An ongoing AFMRC project is looking into comprehensive psychological assessment and management of amputees. However, much more is required to be done in this rather neglected field.

References

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One Man HAPO Bag

Dear Editor,

This refers to the article "Improved device for CO₂ absorption in the One Man Bag for High Altitude Pulmonary Oedema" published in *MJAFI* [1]. High altitude pulmonary oedema (HAPO) continues to be a challenging medical emergency to physicians and medical officers stationed at high altitude. Central to the pathogenesis of HAPO is hypobaric hypoxia leading to pulmonary arterial hypertension, increased pulmonary vascular resistance and endothelial injury. These results in increased capillary permeability and exudation of protein rich edema fluid into the alveoli. Much has been achieved and mortality brought down to near zero levels by prompt oxygen administration, quick descent, use of recompression chamber and now recently with the use of inhaled nitric oxide.

The one-man hyperbaric bag has been designed to provide a mini high-pressure environment and provide normobaric oxygen. Here air is compressed into the bag by means of a foot pump. Certain shortcomings of the bag viz. built up of carbon dioxide and water vapour have been overcome by incorporating CO₂ absorbent devices and small fans etc. The greatest limitation of the HAPO bag is that the physician / MO has no easy access to the patient for

Reply

This refers to the suggestion to try positive end-expiratory pressure (PEEP) for the treatment of high altitude pulmonary oedema (HAPO). The use of PEEP has already been tried and found useful [1,2]. However, in my experience a simple tight fitting facemask seems to work just as well.

It is agreed that the one-man HAPO bag has several limitations, but when it is used judiciously the results are most gratifying. Though monitoring patients is difficult, I have found the battery operated pulse oximeter most helpful as this little piece of equipment can be put into the bag with the patient and the pulse rate and SaO₂ can be read off directly through one of the windows on the bag. The High Altitude Medical Research Centre (HAMRC) had recommended to the office of the DGAFMS in 2001 that each of the one-man HAPO bags must be supplied with such a pulse oximeter.

It is also to be reiterated that the safest and surest form of treatment of early HAPO is a quick and considerable descent. This is not always possible hence the second best treatment modality still remains bed rest and oxygen by facemask (with or without

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monitoring and quick intervention. A possible alternative to the HAPO bag worth exploring would be tight fitting O₂ mask with a positive end expiratory pressure (PEEP) valve. Initially O₂ could be delivered at high flow rates and PEEP set at high values (10-15 cm of water) and then reduced depending on the Pa O₂ and Sa O₂. In field conditions only Sa O₂ monitoring would be possible. A small CO₂ absorbent canister could be incorporated at the side of the mask. It would be worth carrying out case control studies by physiologists and physicians stationed at high altitude on the use of such a device. A readily available mask is the one used with Ambu bag resuscitator and trials could commence using this mask.

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PEEP) given at a brisk rate of 8-10 L/min. The one-man HAPO bag is only the third option and is only a first-aid measure till the patient can be evacuated to hospital. But at remote posts from where evacuation is impossible or delayed, due to bad weather or enemy action, and the stock of oxygen cylinders is depleted then the third choice becomes the only choice and must be used despite all its limitations. Therein lies the importance of enhancing the capabilities of the one-man HAPO bag.

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