Book Review


Contributions to the book are made by Specialists from all three branches of the US Armed Forces Medical Services, including their Nursing Service and therefore makes comprehensive reading. The book is divided into 3 sections pertaining to the requirement for Aeromedical Evacuation (AE), the manner in which it is to be carried out and most importantly the assessment and transportation of specific types of patients, an aspect which covers over 50% of the book.

Both peace time and military AE has been dealt with, keeping in mind the changing war climate (terrorist attacks and NBC) and the types of casualties likely to occur thereof. In part 2 of the book, chapters covering ‘the means’ deals adequately with procedures for accepting patients, the details of carriage within the aircrafts used for AE and the physiological limitations. Nursing care and inflight emergencies are also featured in this part.

In part 3, the chapters deal with specific systems, how and when AE is to be resorted to, with the chapters on Neurosurgical and Cardio-thoracic disorders being more explicit. Important features in each chapter are the paragraphs on preparation for AE and the implications of AE.

The book would make excellent reading for all field Aero-medical specialists.

Reviewed By Wg Cdr Ajoy Krishnamurthy

Answers : Pathology Quiz

1. B. Thalassemia minor usually represents a heterozygous state and is often asymptomatic.

2. E. A serum iron estimation would be most helpful. Peripheral smear findings may be similar in iron deficiency anemia. However, iron stores are increased, as in most chronic haemolytic anemias in contrast to iron deficiency where they are decreased.

3. A. An increased amount of fetal A2 haemoglobin would be expected. Since the beta chains are decreased, the alpha chains combine with gamma and delta chains to make Hb F and A2.

4. C. The present treatment of choice is purely supportive. Iron therapy is contraindicated because of presence of increased iron stores. Care is taken to watch for anaemia during intercurrent illness.

Aeromedical Disposal of Cases of Thalassemia Trait

Thalassemia trait is the heterozogous form of the hemoglobinoopathy resulting from abnormal synthesis of globin chains. The normal hemoglobin in adults is HbA(96-98%), HbA2(1-3%) and HbF (< 1%). The normal and abnormal hemoglobin can be differentiated by electrophoresis and chromatography. There are two types of heterozygous Thalassemia or minor Thalassemia, Alpha and Beta, depending on the globin chain that is deficient. The anaemia is only slight with hemoglobin levels never going below 9g/dl. Furthermore, most patients may never have any symptoms during their life span. Treatment is usually not required for this benign hematological disorder. Medical waivers for pilots with minor form of the disorder can be considered favorably as long as the anaemia is minimal and the patient is symptom free (Clinical Aviation Medicine - RB Rayman 3rd edition).

As per Indian Air Force Publications 4303, (The Manual of Medical Examinations and Medical Boards 3rd eddition, Section 6.16.2), cases of Thalassemia Trait detected fist time need to be evaluated in detail and observed in Low Medical Category for 12-24 weeks. Aircrew with Hb levels of > 11.5 g/dl (males) and 10.5 g/ dl (females) can be considered for upgraded to medical category A2 G2 (P), fit to fly after a period of observation of 24-48 weeks. Ground duty officers can be upgraded to medical category A4G2 (P) after a similar observation.

Compiled By Wg Cdr S Kudesia (Retd)