

27. DISORDERS OF BLOOD AND BLOOD CLOTTING

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27.2 Anaemia

27.2.1 Introduction

- (i) Anaemia is a very common condition and may be defined as an abnormally low level of haemoglobin in the blood. The oxygen carrying capacity of the blood depends on the presence of haemoglobin which is contained in red blood cells. When the haemoglobin level in the blood is reduced, the various parts of the body are deprived of oxygen, which is vital to their needs, resulting in all the symptoms attributable to anaemia. Insofar as chronic heart and lung diseases [Chapter 11] also deprive the body of oxygen, they give rise to some of the same symptoms as anaemia and will be more disabling in the presence of anaemia.
- (ii) Anaemia may be due to excessive blood loss; inadequate production of normal red blood cells; excessive destruction of red blood cells, or to various combinations of these factors.
- (iii) Whilst it is often possible to treat both the cause of severe anaemia and the anaemia itself, sometimes such an anaemia is a complication of a serious underlying disease (e.g. leukaemia,) which may give rise to significant disablement in its own right.

27.2.2 Care Needs

Anaemia may be slight and symptomless and is common in young women of child-bearing age, as a result of blood loss during menstrual periods. When the anaemia is much more severe the individual becomes progressively weaker and more breathless. Only in its advanced stages is anaemia likely to give rise to a need for attention or supervision in its own right, by which time breathlessness will occur at rest, or on the slightest exertion. With this degree of anaemia everyday activities may be impossible, or take an inordinate length of time to execute.

27.2.3 Mobility Considerations

Severe cases of anaemia may result in limited walking ability, due to breathlessness and this is likely to precede attention and supervisory needs. Any angina or intermittent claudication [see Chapters 11 & 13] will be rendered more disabling by the presence of significant anaemia. The presence of anaemia in the vast majority of people is unlikely to be of a severity which would result in a degree of weakness and/or breathlessness sufficient to impair walking to a significant degree.

27.2.4 Duration of Need

This is very largely determined by the cause. Whilst the anaemia resulting from blood loss can be corrected, if necessary, by transfusion, anaemia secondary to malignant disease, or renal failure, is likely to be chronic. Thus the duration of need is likely to be determined by such underlying conditions and their responses to treatment, rather than by the anaemia itself.

27.3 Haemophilia in Adults

27.3.1 Introduction

(i) Haemophilia A is the commonest of the inherited disorders of blood clotting and occurs almost exclusively in males in its active form. It affects 1:4000 of the population of Britain, although only 1:20,000 is severely affected. Other similar disorders giving rise to a bleeding tendency are Christmas disease (also known as Haemophilia B) and von Willebrand's disease. Haemophilia B has very similar effects to haemophilia A, while von Willebrand's disease usually follows a milder course.

(ii) The conditions are due to deficiencies in the blood clotting mechanism and are characterised by a life-long tendency to excessive bleeding. In haemophilia A there is either a seriously reduced level (less than 5%) or

total absence of Factor VIII and in haemophilia B a similar lack of Factor IX. The effect of this is greatly to increase the time it takes for blood to clot, so that the affected individual may bleed seriously after minor injury or in some cases, even after normal physical activity. The knee joint is most frequently affected because of the damage done to the joint and its surroundings by blood loss into the joint..

- (iii) The conditions are treated by replacement of the missing clotting factor by intravenous injection, either at regular intervals or in emergencies caused by bleeding episodes. Usually, affected individuals are provided with a supply of the appropriate clotting factor and are taught to inject themselves immediately bleeding occurs. If there is bleeding into a joint (such as the knee) all that is usually required is for the joint to be rested for a few days until it has settled down. Some people attend hospital for their injections.

27.3.2 Care Needs

- (i) Adults should have a clear understanding of their condition and the need to avoid injury. They should not normally need supervision to avoid the danger of precipitating bleeding episodes.
- (ii) Adults are taught to give themselves the clotting factor and they should not normally require attention for this reason. If help is required because of mental impairment or arthritis of the hands affecting manual dexterity, etc. the need for injections is usually intermittent and infrequent. Even if bleeding is more frequent so that help is needed more often, the time taken to prepare and give an injection is not great and no other help should be needed. Supervision is not likely to be required as the person can ask for assistance when this is necessary. Watching over at night is unlikely to be necessary.
- (iii) Repeated bleeding into joints may lead to permanent damage and the care needs may then be similar to someone with extensive inflammatory or degenerative arthritis [Chapter 6].

27.3.3 Mobility Considerations

Repeated bleeding into lower limb joints may lead to the development of arthritis with a consequent effect on walking ability. For those individuals with severe haemophilia A (less than 5% Factor VIII) or severe forms of haemophilia B there may be a significant danger of spontaneous and serious bleeding into joints during normal walking. This will need to be taken into account when mobility needs are being considered.

27.3.4 Duration of Need

If the risk of severe bleeding when walking has been established or severe joint damage has occurred the need for help will be permanent. However in some individuals knee joint replacement is an option which, when

successful, considerably improves function at the affected joint.

27.3.5 Further Evidence

People with haemophilia are invariably under the care of the haematology department of a hospital. A factual report from the hospital may help to establish the danger of a spontaneous bleed when walking and a history of bleeding episodes and any resulting disability.

27.4 Haemophilia and Human Immunodeficiency Virus Infection

Before 1985 1200 people with haemophilia were infected by preparations of Factor VIII contaminated with the HIV virus. Unfortunately a number of these people have developed symptomatic HIV infection. Care and mobility needs may result from the effects of haemophilia and symptomatic HIV infection. [See also Chapter 32].