1. Introduction to Hypermobility

Historical Background

The first clinical description of articular hypermobility is attributed to Hippocrates who, in the fourth century B.C., described the Scythians, a race of people inhabiting the region that now forms the Ukraine and Czechoslovakia, as having humidity, flabbiness and atony such that they were unable to use their weapons. Their main problem in warfare was that hyperlaxity of the elbow and shoulder joints prevented them from effectively drawing their bows.

Thereafter the study of joint hypermobility was ignored until the late nineteenth century when general physicians were energetically defining medical syndromes, some of which included joint hypermobility as an important feature. Notable amongst these were the Ehlers–Danlos (EDS) and the Marfan syndromes.

The last 50 years have seen the recognition of joint hypermobility, without more widespread connective tissue abnormality, as a cause of orthopaedic and rheumatological symptoms. In investigations on a small number of subjects Finkelstein (1916) and Key (1927) noted a familial predisposition to lax joints. Subsequently orthopaedic surgeons recognised the importance of generalised joint laxity in the pathogenesis of dislocation of a single joint. Congenital dislocation of the hip was investigated by Massie and Howarth (1951) and Carter and Wilkinson (1964). Carter and Sweetnam studied dislocation of the patella (1958) and dislocation of the patella and shoulder (1960). Thereafter generalised joint laxity was recognised as being more common than had previously been realised. This led to the introduction of simple clinical scoring systems for measuring joint laxity in affected individuals and populations.

The first report of an association between joint laxity and rheumatological symptoms emanated from Sutro (1947) who described 13 young adults with effusions and pain in hypermobile knees and ankles. Similar clinical observations led Kirk et al. (1967) to define the ‘hypermobility syndrome’ in a group of patients with joint laxity and musculoskeletal complaints. In the absence of demonstrable systemic rheumatological disease, these authors attributed the symptoms to articular hypermobility.
Wood (1971) argued from the epidemiological viewpoint that joint hypermobility should be considered as a graded trait rather than as an ‘all or nothing’ syndrome. This is a simplistic concept, and there is general agreement amongst colleagues with clinical experience that the category of loose-jointed persons contains not only those at the upper end of the normal spectrum, but also examples of familial undifferentiated hypermobility syndromes (see Chap. 10).

Development of Concepts Concerning Rheumatological Manifestations

It is apparent that symptoms arising from lax joints may commence at any age. In their classical paper, Kirk et al. (1967) described 24 patients with generalised joint hypermobility. Their symptoms started between the ages of 3 and 55, and three-quarters had problems before the age of 15. Females were more frequently affected than males. Symptoms were mainly in the lower limbs, the commonest being pain in the knees and ankles, although joint effusions and muscle cramps also occurred. Supraspinatus and bicipital tendonitis, tennis elbow and painful Achilles tendons were also noted.

In a comprehensive review Ansell (1972) mentioned that symptoms occur after, rather than during, unaccustomed exercise and diminish in later life, perhaps as the joints stiffen. Although the prognosis is good, other arthropathies must be excluded before making a diagnosis of the ‘hypermobility syndrome’. Thus, in 690 new referrals to a paediatric rheumatology unit, hypermobility was considered to be the final diagnosis in only 12. Most clinicians agree that the condition is under-diagnosed, and with greater awareness many patients with ‘growing pains’ in childhood are likely to be recognised as hypermobile.

Some persons consider themselves to be ‘double-jointed’ or ‘loose-limbed’. There is often a family history of loose joints, and they may be talented at activities such as ballet dancing (see Chap. 8). By contrast, symptomatic patients are sometimes labelled as neurotic when medical practitioners, who are unaware of the syndrome, are unable to explain their symptoms.

The hypermobile individual may be especially at risk from chronic back pain, disc prolapse and spondylolisthesis. In addition the ‘loose back’ syndrome, in which women with hypermobility develop unexplained back pain in the absence of demonstrable disc lesions or spondylitis, is now accepted as being more common than originally supposed (Howes and Isdale 1971).