SOFT TISSUE RHEUMATISM

THESIS

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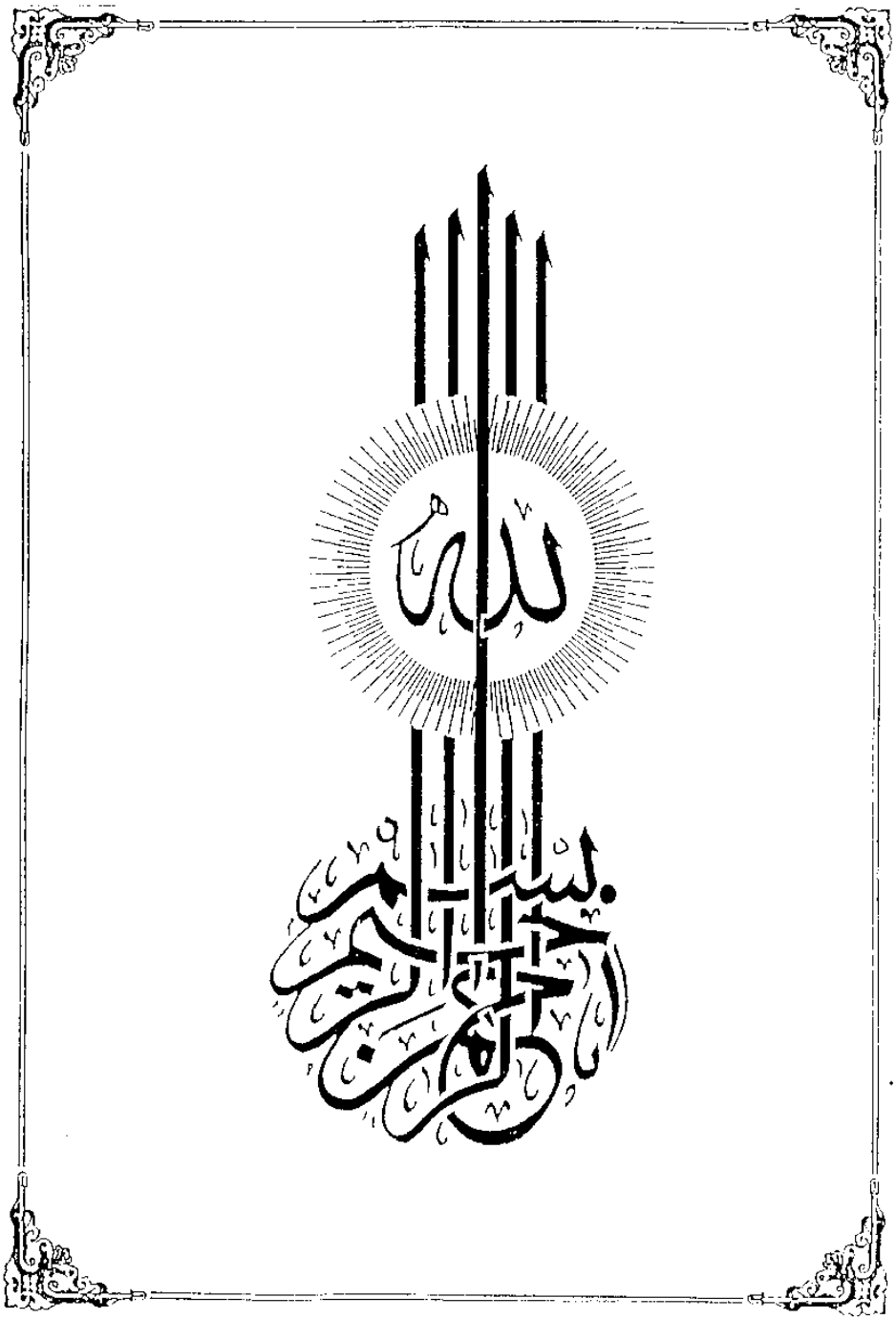
D E D I C A T I O N

Dedicated to the memory of my parents, and to my wife and daughter.



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INTRODUCTION AND

AIM OF THE WORK

Introduction and Aim of the Work:

"Non articular or soft tissue rheumatism" refers to a large, diverse group of syndromes manifested in pain, stiffness, and tenderness in the musculoskeletal system, excluding the joints themselves. (Hench, 1977).

Soft tissue pain is a particular type of musculoskeletal pain and stiffness that can result from misuse of muscles or from mild structural skeletal disturbances. A comprehensive treatment program tailored to the individual should provide relief in most cases. (Sheon, 1980). Occasionally, a soft tissue pain syndrome develops into a chronic pain-spasm-pain cycle, with resultant total disability. The following features distinguish the soft tissue pain syndromes from most other disorders of the musculoskeletal system.

. Nighttime pain if often worse than daytime pain.

. Pain is often initially improved by movement but becomes worse with continued activity.

. A myofascial trigger point is often present and palpation of the trigger point reproduces or accentuates the pain.

. Laboratory and radiographic findings are usually normal or negative.

. Specific treatment often relieves the pain, which corroborates the diagnosis. (Sheon, 1980).

Nonarticular rheumetic disorders together represent one third of all rheumatic diseases seen by family physicians and represent 3-4 % of all ambulatory medical care visits (Medsger 1983). Approximately 30% of patients who attend

arthritis clinics in the United States have non-articular rheumatism (Shulman, 1971). Non-articular rheumatism, usually occurs as isolated self-limiting events, but occasionally may be the forerunner of potentially more serious inflammatory polyarthritis, such as rheumatoid arthritis, or any of the seronegative variants, such as ankylosing spondylitis (Jessop, 1983).

With these important facts in mind we intended to review this subject with special study of any possible serological changes.

REVIEW OF LITERATURE

CHAPTER I

SOFT TISSUE RHEUMATISM

AETIOLOGY

Athough the aetiology of nonarticular rheumatism is still unsettled, common experience has shown that certain factors are of particular significance.

COLD:

Exposure to cold and damp are universally recognized as factors which commonly precipitate an acute attack, espicially in those people with a predisposition to the disorder (Duthie, 1974). It is probable, as individuals vary in their apparent sensitivity to the direct effects of cold, that the condition of conditioning to low temperature is of greater importance in the production of a rheumatic response than the absolute temperature to which the body is exposed. It may be in this direction that the clue to the "rheumatic constitution" lies.

The effect of local cold in the form of a draught impinging upon some uncovered portion of the body must also be recognized as an apparently causative factor in some cases of fibrositis presumably as the result of localized circulatory changes. It is thought that 'weather sensitivity' in the fibrositic patient can often be explained by the occurence of'cold fronts' which have been shown by meteorologists to precede major changes in weather. During these periods the temperature changes are often very rapid and considerably greater then is generally realized (Copeman, 1969).

PHYSICAL FATIGUE:

Fatigued muscles are peculiarly prone to become the seat of an attack (Duthie, 1974). Normal use and normal movement place no stress upon soft tissues. Excessive use, abuse, and misuse can cause irritation with resultant pain and disability (Cailliet, 1981).

TRAUMA:

Trauma in the broadest concept of the term is the greatest cause of soft tissue pain and functional impairment. Every aspect of the musculoskeletal system is subject to trauma in various forms (Cailliet, 1981).

A single traumatic incident, such as an athletic injury or road accident, may be causative many years after its occurence, as the result of gradual fibrosis and contraction in soft tissues. Trauma can occur however from the inside also, as the result of prolonged postural and other strains on the soft tissues, as the result of some anatomical deformity such as a scoliosis or slight shortening of one leg; or even as the result of repetitive industrial employment. Repeated micro-traumata, such as results from the use of vibrating drills and similar tools, will produce the same effect more rapidly. This effect result presumably from the establishment of small somatic lesions which will ultimately constitute the tender trigger points of fibrous nodules in the tendon sheaths or subcutaneous fibro-fatty tissues, from which widespread pain may be referred (Copeman, 1969).

POSTURE:

Poor posture is associated with muscular imbalance, which results in chronic local fatigue of certain muscle groups. Such local fatigue is accompanied by dull aching pain, often diagnosed as fibrositis (Duthie, 1974).

Posture per se can be the trauma that initiates cervical or radicular pain. The forward head posture on the basis of a round back posture causes an increase in cervical lordosis with foraminal closure and increases approachement of the posterior articulation (facets) (Cailliet, 1981).

Kyphosis, lordosis or scoliosis causing ligamentous strain. Deformities of hips, knees and feet throw postural strains on spine (e.g. flat feet, unilateral short leg). Lumber lordosis results in approximation of spinous process. ('Kissing spines' with pseudsarthrosis interspinalis - Beastrup's syndrome). (Golding, 1982).

INFECTION:

There is no doubt that certain general infective processes, mostly of virus origin, such as influenze, rubella and measles may initiate quite severe non-articular pain, both during their active course and also for long periods subsequently. (Copeman, 1969). It has been stated that tender areas in the muscles may persist after such infections and form a basis for future attacks of fibrositis (Duthie, 1974). It is well recognized that there is also epidemic forms of fibrositis, of which the best recognized is Bornholm diseese. The cause of this is