SURGICAL MANAGEMENT OF CERVICAL SPONDYLOTIC MYELOPATHY

THESIS

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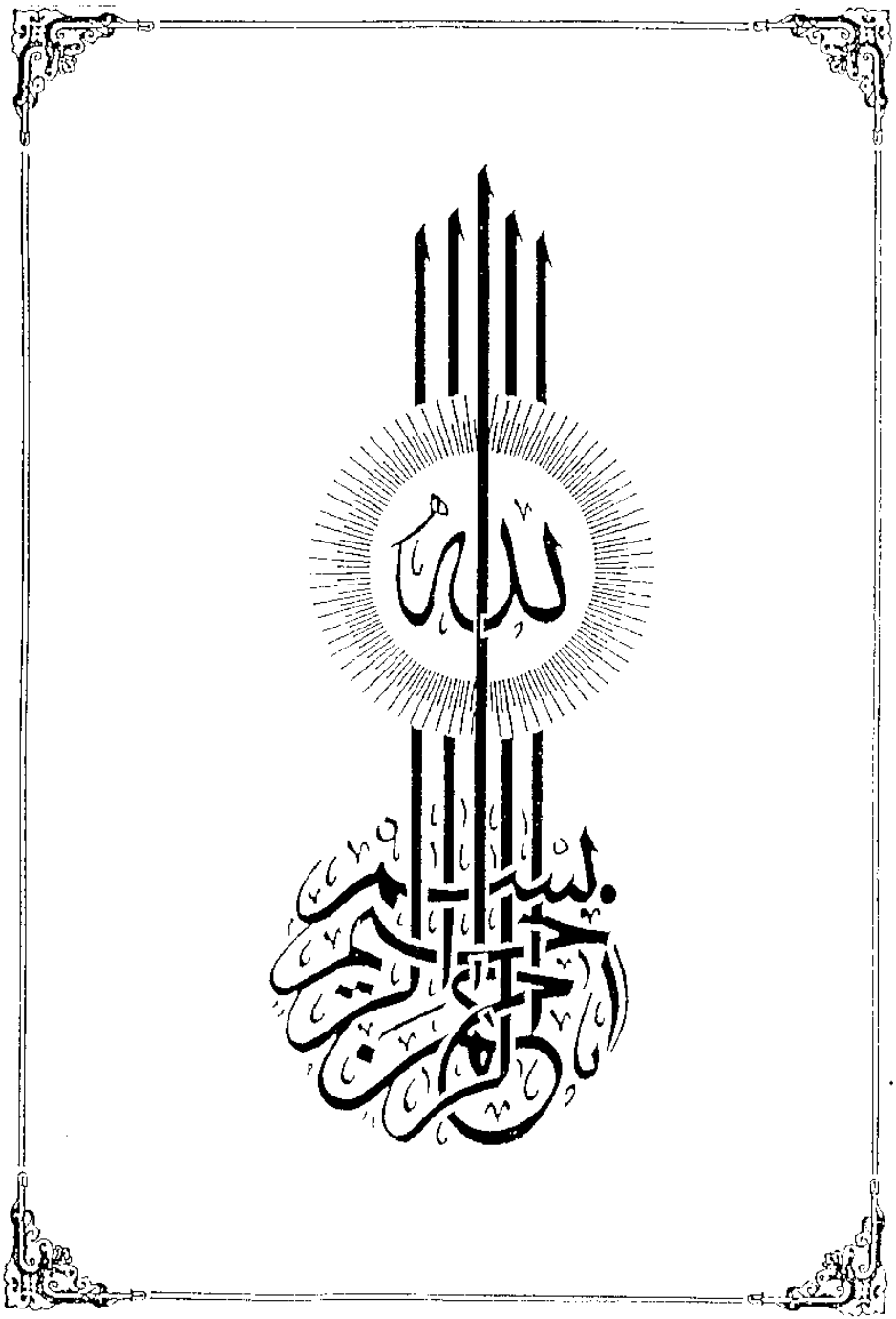

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INTRODUCTION AND AIM OF THE WORK

Introduction

British clinicians have been responsible for the classification of the neurological syndromes that result from cervical spondylosis.

Lord Brain and his associates were the pioneers in establishing the proper pathological foundation of cervical cord radiculopathy and myelopathy.

Less and Aldren-Turner defined the natural history of these disorders.

Cervical spondylotic myelopathy presents clinically mainly with upper motor neuron lesion manifestations in the lower limbs and lower motor neuron lesion manifestations in the upper limbs. Local neck pain, brachialgia are not prominent parts of the syndrome but previous history of trauma is usually positive in at least 1/4 of the cases. The pathogenesis of cervical spondylotic myelopathy is essentially the usual degenerative changes, that occur in the cervical spine motion segments with shallow spinal canal separates the entity of spondylotic myelopathy from disc degeneration changes that cause myelopathy.

Still there are many aspects in the pathogenesis of this clinical entity that are not yet cleared.

But for the purpose of treating cervical spondylotic myelopathy, the following factors should be considered.

1.The developmental shallowness of the cervical canal.

2.The effects induced by biomechanical motion as the cervical spine is endowed with a wide range of mobility in flexion and extension, due to its anatomial configuration. Degenerative lesions of cervical disc leads to excessive mobility by the motion segement of the diseased part of the cervical spine. The excessive flexion, extension movement leads to repeated injury to the cord and to the development of spondylotic myelopathy.

3.Pathological encroachments.

4.The adequacy of the circulation. [Ehni, 1984]

So the complex bio-mechanical chain of causalities must be investigated in more detail in particular with reference to the problems of surgical therapy. ***[Ehni,1984]***

The management of cervical spondylotic myelopathy is still problematical, the course of the disease may be slow with remission or rapidly progressive with down hill course which makes the evaluation of the different lines of treatment of this condition, extremely difficult. No withstanding that many of clinical studies have short follow up after surgical treatment .

Some authors are every psmestic about treating the condition if there are signs of neurological deficit clinically. ***[Ehni,1984]***

The different lines of treatment of cervical spondylotic myelopathy basically include :

A- Posterior approach to the cervical spine to decompress the narrow cervical canal and remove the effect of the inelastic ligamentum flavum and bulging of discs during flexion and extention. But this approach doesn't remove the bony bars or affect the excessive mobility. ***[Plepgras,1977]***

Epstein in the sixties attempt removal of these bars by posterior aproach but this operative procedure fail of surgical silence over the years.

B- The anterior approach which is logical done to remove the bony bars and if grafts are used, it causes fixation of the abnormal motion segments. The grafts may be bone, or bone cement though some few surgeons may not use grafts at all.

The shallowness of the bony canal is not treated by this approach, but the patient has lived his life with his shallow canal and the surgical treatment remove the offending etiological lesion. ***[Ehni,1990]***

AIM OF THE WORK

The aim of this work is to optimize the results of surgical treatment in cervical spondylotic myelopathy and to study the factors which affect the results .

REVIEW OF LITERATURE