

SUMMARY

Introduction.

This thesis wants to contribute to the research into the etiology of idiopathic scoliosis. Although it may sound paradoxical, the motivation for professionals to do research into a possible etiology of this characteristic anomaly should not decrease.

Long ago William Garner Sutherland described his views on perinatal cranial pathology, which may lead to serious deformities later on in life. These views have been used to focus attention on the following problem: is the etiology of the idiopathic scoliosis in fact still unknown, or can we presume that this deformity is mainly caused by birth traumas. Further study of possible causes may lead to recommendations, especially from an osteopathic point of view.

Chapter I.

After a survey of the terminology the characteristic external symptoms are mentioned. According to orthopedists three groups of idiopathic scoliosis are described - infantile, juvenile and adolescent scoliosis. As to the curves pattern the conclusion is that the thoracal idiopathic scoliosis occurs most frequently.

Chapter II.

Although in orthopedic literature little is found about the etiology of idiopathic scoliosis, a summary is given of the possible etiologic aspects that are the result of the orthopedic findings. An important finding of orthopedic specialists is that infantile idiopathic scoliosis and plagiocephaly often occur side by side. Another common feature is torticollis with normal sternocleidomastoid muscles.

Furthermore, orthopedic authorities believe that there is a definite familial incidence and inheritance pattern.

Chapter III.

Attention is paid to osteopathic ideas about plagiocephaly. As to the etiology three critical circumstances are described:

- a) During pregnancy,
- b) During birth,
- c) Instrumental delivery.

As an example I have chosen the common occiput-to-the-left-and-anterior presentation. Several traumatic moments are discussed due to: maternal pelvic abnormality, syn-and-asyn-clitism, rotation of the head, cervix-rigidity, cervix-oedema, forceps-delivery and natal stresses.

Chapter IV.

Possible visible and invisible effects on the head of the fetus are described. One of the conclusions is that especially the vulnerability of the occiput can lead to deformations, which may lead to scoliosis. In a holistic view, idiopathic scoliosis can be regarded as a functional compensation in order to keep the field of vision and the balancing organ in a horizontal plane.

Chapter V.

Here Still's slogan : "Structure governs function" needs an adaptation. In functional anatomy there is no primacy, but here the relation is reciprocal. In addition to the above mentioned, the great plasticity of bony tissues makes the fast progression during the periods of rapid growth understandable.

Chapter VI.

Although in certain cases osteopathic examination of the newborn can be recommended, the ideas of most obstetricians and children's specialists about skull deformations of the newborns and about difficult deliveries are not very helpful in this respect.

Still, when there is suspicion of pathological deformation of the skull, it is important to distinguish whether an excessive distortion is restricted to the vault or if perhaps the base of the skull is affected. Of course, a special experience in this field is indispensable.

Besides, the symptoms already described, other signs of cranial distortions are mentioned in this chapter. Though it is impossible to catalogue all lesions - for no two cases are alike - this thesis pays attention to the most important corrections.

Chapter VII.

Although the etiology of idiopathic scoliosis is still insufficiently known, the conclusion must be drawn that this abnormality is often caused by conditions in utero and by birth traumas.

The etiologic observations of the orthopedists fit in to this hypothesis. It is just the vulnerability of the occiput of the fetus, in connection with the hazards of being born, that can provide a predisposing condition.

While the present treatment of the injured skull of newborns is still inadequate, this often is also due to misconceptions of the professionals concerned. They do not always realize that deformation of the base of the skull at birth is possible.

One of the conclusions is that it would be very useful if for comparative study more research and statistic data from different countries would be available. Another conclusion is that osteopathic evaluation of the pelvic mobility seems useful when older primiparas are concerned.

Older children with scoliosis may still benefit from osteopathic treatment.

Finally, it would be an important task for osteopathic associations to give more publicity about the possibilities of osteopathy in the preventive treatment of probable birth traumas.