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#### VAN DIE REDAKSIE

##### RUGGRAATSVKROMMING

Sywaartse kromming van die ruggraat is 'n toestand wat die mediese wetenskap al vir 'n duisend jaar interesseer. 'n Oorsig van die verskillende teorieë oor die oorsaak daarvan sou boekdele vul en 'n studie van die behandeling daarvan sou 'n menigte meganiese toestelle, liggaamshoudings en beheerstelsels in aanmerking moet neem. Ten spyte hiervan is die enigste werklik praktiese vordering in die behandeling geleë in die *stroombelyning* van die bestaande metodes, soos die vervanging van staal deur aluminium, of van swaar leerkruijsbande deur 'n ligter plastiese soort.

Sover is daar nog geen geneesmiddels nie en vermoedelik is die vernaamste rede vir hierdie feit die verwarring wat daar bestaan i.v.m. die oorsaak van skoliose. Soos een gesaghebbende oor die onderwerp onlangs geskrywe het, is daar nie eens 'n aantreklike hipotese vir die idiopatiese tipe nie.<sup>1</sup> Vir sommige van die ander tipes kan iets meer presies voorgestel word. So sal bv. eensydige verlamming van die laterale buikspiere as gevolg van anterior rugmurgontsteking (*polio*) 'n vasstaande ruggraatsverkrumming veroorsaak, waarvan die konvektheid van die boog (bors-lende-) na die kant van die swak spiere is. Insgelyks sal 'n kort been die bekken laat kantel en 'n kompenserende skoliose veroorsaak wat maklik verhelp kan word deur die hoogte van die hak te stel. Vir die oorgrote meerderheid gevalle met laterale kromming kan daar egter geen oorsaak gevind word nie.

Laterale kromming, so word ons vertel, is een van die boetes vir ons regop houding<sup>2</sup> en enige faktore wat die meganiek van die ruggraat moontlik kan verstoer sal tot kromming predisponer. Gevolglik word oormatige vermoeienis of swakheid daarvoor verantwoordelik gehou, asook die verkeerde liggaamsposisie wat as 'n gewoonte aangekweek word by 'n swakbeplande skool- of werkbank. Psigologiese faktore word ook aangehaal. Ondanks al hierdie entoesiastiese veronderstellings i.v.m. die oorsaakleer, is baie min bygedra om ons 'n beter begrip van die toestand te gee en slegs in die laaste jare is hierdie gees van ywerige ondersoek op die vraagstuk van prognose sowel as behandeling gespits.

Die prognose is intiem verbonde aan die sogenaamde kurwepatroon. Ponseti en Friedman<sup>3</sup> het 4 kurwepatrone vasgestel wat van die posisie van die boog afhang, nl. bors-, bors-lende-, gekombineerde bors- en lende-, en lendeboog, elk met 'n definitiewe en kenmerkende prognose. Dit is die waardevolste bydrae van die jongste

#### EDITORIAL

##### SCOLIOSIS

Lateral curvature of the spine is a condition that has intrigued medical science for a thousand years. A survey of the different theories of its aetiology would fill volumes, and a study of its treatment would involve consideration of a host of mechanical appliances, postures and regimes. Despite this, the only real practical advance in treatment has lain in the streamlining of existing methods, such as the replacement of steel by aluminium, or of heavy leather braces by lighter plastic ones. There is still no cure.

The main reason for this fact, presumably, is the confusion that exists over the aetiology of scoliosis. As one authority on the subject recently wrote, for the idiopathic type there is not even an attractive hypothesis.<sup>1</sup> For some of the other types something a little more definite can be suggested. For example, unilateral paralysis of the lateral abdominal muscles due to anterior poliomyelitis will produce a fixed spinal curvature with the convexity of the curve (thoraco-lumbar) on the side of the weak muscles. Similarly, a short lower limb will tilt the pelvis and produce compensatory scoliosis, which is easily correctable by adjusting the height of the heels. For the vast majority of cases of lateral curvature, however, no cause can be found.

Lateral curvature, so we are told, is one of the penalties of the erect posture,<sup>2</sup> and any factors likely to upset the mechanics of the vertebral column will predispose to it. Thus excessive fatigue or weakness has been incriminated; also the poor posture incurred as a habit by an ill-designed school desk or work bench; and, lastly, psychological factors have been brought into the picture. For all this enthusiastic postulation about the aetiology, little has been contributed to our better understanding of the condition, and only in recent years has this spirit of enthusiastic enquiry been applied to the problem of prognosis and treatment as well.

The prognosis is intimately related to the so-called curve pattern. Ponseti and Friedman<sup>3</sup> have established 4 curve patterns, depending on the level of curvature, viz. thoracic, thoraco-lumbar, combined thoracic and lumbar, and lumbar, each with a definite and characteris-

tyd tot die kennis van die onderwerp. Die prognose is ernstig in slegs omtrent 5-10% van idiopatiese struktuurkrommings en die twee faktore wat in die prognose betrokke is, is (1) die posisie van die kromming, en (2) die aanvangsouderdadom. Algemeen gesproke, hoe hoër die vernaamste kromming en hoe vroeër die aanvang, hoe slegter is die prognose. Die teenoorgestelde is ook waar: lendeskoliose is selde ernstig en skoliose wat na die ouderdom van 14 jaar ontwikkel, word dikwels nie erger nie.<sup>4</sup>

Die mees algemene tipe is die gekombineerde bors- en lendekromming, waar die twee boë neig om mekaar te kanselleer en die skouers dus horisontaal en die voorkoms goed is. Dikwels word hierdie gevalle nie opgemerk nie, netsoos die lendetipe (punt van die boog teenoor L 1 of 2) wat 25% van die gevalle uitmaak. Die derde tipe, die bors-lendeboog (punt teenoor T 11 en 12) begin laat en die krommings word groter, gevolglik vereis die uiterlike voorkoms dat dit verhelp moet word. Ten slotte is daar die borskromming (punt teenoor T 8 of 9) wat die swakste prognose het; as dié kondisie voor die ouderdom van 12 jaar begin, is die vooruitsigte baie sleg en is die afwyking altyd groter as in die ander tipes, want die ribbes is betrokke in die rotasie wat met die laterale kromming gepaard gaan.

Hierdie indeling is belangrik want daardeur is dit moontlik om te besluit watter gevalle waarskynlik deur behandeling sal baat. Daar is niks so bedrieglik as om op die oog te skat hoe erg 'n geval van ruggraatsverkrumming is nie; en nog meer belangrik—dit word nou aanvaar dat konservatiewe behandeling (oefeninge, gipsomslae, ruggraatstutte) nog nooit 'n struktuur-skoliose verbeter het nie. Dit is wel waar dat die kind mag leer om beter te staan en 'n beter uiterlike voorkoms mag hê, maar die graad van verkrumming is nooit verbeter nie. Die verskille in die kurwepatrone maak dit nou moontlik om definitief te verklaar dat naasteby 3 uit elke 4 gevalle van skoliose nie ernstig sal word nie, daarom vereis hulle nie behandeling nie en sal hulle ook nie daarby baat vind nie. Natuurlik vereis hierdie 75% voortdurende toesig, maar in hierdie gevalle kan die urelange afwesigheid van die skool, die dra van stutte en die beperking op hul bedrywighede vermy word.

In die 5-10% gevalle wat 'n ernstige gebrekkigheid ontwikkel en wat reggemaak moet word, is die prosedure eerstens die vermindering van die hoek van die kromming met 'n *turn-buckle cast* (Risser-omslag); tweedens, samesmelting van die ruggraat, en dan moet die pasiënt in 'n gipsbaadjie lê. Elk van hierdie stadiums kan moontlik 6 maande of langer duur. Nietemin maak hierdie behandeling dit moontlik vir die pasiënt, wat gewoonlik 'n meisie in haar tienerjare is, om die wêreld met groter gelatenheid in die oë te sien, en net ter wille van die voorkoms alleen kan dit geregverdig word.

1. James, J. I. P. (1954): *Refresher Course for General Practitioners*, p. 416. Londen: British Medical Association.
2. Van die Redaksie (1955): *Lancet*, 1, 801.
3. Ponseti, I. V. en Friedman, B. (1950): *J. Bone Jt. Surg.* 32A, 381.
4. Wiles, P. (1955): *Essentials of Orthopaedics*, 2de druk, p. 114. Londen: J. & A. Churchill, Ltd.

tic prognosis. This is the most valuable recent contribution to the study of the subject. Only about 5-10% of idiopathic structural scoliosis is serious in prognosis and the two factors involved in prognosis are (1) the level of curvature and (2) the age of onset. Generally speaking, 'the higher the level of the main curve and the earlier the onset, the worse is the prognosis. The reverse also holds good: lumbar scoliosis is seldom serious, and scoliosis developing after 14 years of age does not often progress'.<sup>4</sup>

The commonest type is the combined thoracic and lumbar curve, where the two curves tend to cancel each other out, and the shoulders are therefore level and the appearance good. Often these cases go undetected, as do the lumbar type (apex at L 1 or 2), which accounts for about 25% of cases. The third type, the thoracolumbar curve (apex at T 11 or 12), commences late and the curves become greater, and therefore begs correction for cosmetic reasons. Finally, there is the thoracic curve (apex at T 8 or 9), which has the worst prognosis; if the condition begins before the age of 12 years the outlook is very poor, and always the departure is greater than in the other types, because the ribs are involved in the rotation which accompanies the lateral curvature.

This classification is important because it makes it possible to decide which cases are likely to benefit by treatment. Visual impression is never more deceptive than in the assessment of the severity of a vertebral curvature; and—more important—it is now recognized that 'conservative treatment (exercises, plasters, spinal supports) never improved a structural scoliosis. It is true that the child might learn to stand better and look a little better, but the degree of curvature never improved'. By means of the curve-pattern distinctions, it is now possible to state definitely that, say, 3 out of every 4 cases of scoliosis will not become severe, and therefore do not require, and will not benefit by, treatment. Naturally this 75% require constant watching, but in these cases long hours away from school, the wearing of supports and the restriction of activities can be avoided.

In the 5-10% of cases that develop a severe deformity and have to be corrected, the procedure is, first, reduction of the angle of curvature by a turn-buckle cast (Risser jacket), and then spinal fusion followed by recumbency in a plaster jacket. Each of these stages is likely to take 6 months or more. However, this treatment enables the patient, who is generally a young girl in her teens, to face the world with greater equanimity, and justification for it can probably be found on cosmetic grounds alone.

1. James, J. I. P. (1954): *Refresher Course for General Practitioners*, p. 416. Londen: British Medical Association.
2. *Editorial* (1955): *Lancet*, 1, 801.
3. Ponseti, I. V. and Friedman, B. (1950): *J. Bone Jt. Surg.* 32A, 381.
4. Wiles, P. (1955): *Essentials of Orthopaedics*, 2nd ed., p. 114. Londen: J. & A. Churchill Ltd.

## THE CENSORSHIP OF LITERATURE

Censorship of literature is a two-edged weapon which may in the long run do more harm than good. It is also a most difficult function for any individual or committee to exercise. With the limitations, prejudices, fads and foibles which enter into the make-up of most of us, even the most learned, the censor is given the power and duty of restricting the free choice in books and journals of the community as a whole, and declaring that certain literature shall be put outside their reach. There is a warning before us in the way this and analogous powers have been abused in totalitarian states in the endeavour to force the knowledge and opinions of the public into a particular mould. Ludicrous examples, too, of censorship gone wrong are to be found in the most democratic of countries.

This distrust of censorship is generally shared by thinking people. Nevertheless there is a strong general opinion that certain literature, for instance pornographic publications (to refer to only one kind of 'evil' literature), is harmful to the reader, especially the child and adolescent, and should be controlled. Even this kind of censorship calls for much caution in its exercise. Many masterpieces of literature and art could hardly have come into existence if they had been subject to a prudish board of censors.

Sex in literature is of immediate interest to the medical

profession not only because of the psychological importance of sex in health and disease, but because much essential medical literature has a pornographic value if it gets into the hands of consciously or unconsciously prurient readers amongst the laity. The same applies to certain other scientific literature. Another aspect of the subject appears when books are published for pornographic purposes under the guise of medical or scientific literature.

At present a Committee of Inquiry into Undesirable Literature, set up by the Union Government, is taking evidence. Should it be decided to establish an authority with powers to deal with the publication and distribution of 'undesirable literature' it is advisable to devise measures to make the views of the medical profession available to that authority. An obvious way to achieve this would be to give the profession (preferably through the South African Medical Association) representation within the authority or on its appropriate committee. If measures are decided on that do not include the establishment of such an authority, it will still be desirable to maintain contact with the profession. The reason for this is not only to safeguard the freedom of *bona fide* medical literature, but also because the question of harmful literature cannot be adequately dealt with without information about its possible effect on psychical and physical health.