

TROMMELSTOKVINGERS

Die benaming 'trommelstokvingers' kom in verskeie tale voor, byvoorbeeld Duits, 'trommelschlegelfinger' en Engels, 'clubbing', hoewel self 'drumstickfinger' in die ouer Engelse literatuur voorkom. Die jongste literatuur toon 'n insydeling van die term akropagie (Duits, 'akropachie'; Engels, 'acropachy'), en dit is omtrent die enigste besliste stelling wat aangaande die toestand gemaak kan word.

Reeds in die vyfde eeu voor Christus, het Hippokrates¹ die toestand in 'n vrou met empieem waargeneem en die kromming van die vingernaels in verband met die longtoestand gebring, en Caelius Aurelianus² het in die jaar 200 n.C. reeds daarop gewys dat daar 'n toename in die volume van die vingerpunt is in hierdie toestand.

Gedurende die volgende 16 eeue is die toestand in vergelyking gebring, behalwe vir enkele verwysings na Hippokratiese vingers as 'n diagnostiese teken. Pigeaux³ het in 1832 die eerste omvattende studie oor die toestand gepubliseer en Bamberger⁴ en Marie⁵ het in 1889 en 1891, respektiewelik, die been- en gewrigsveranderinge, wat soms by gevalle met trommelstokvingers gevind word, beskryf. Marie het die toestand tereg aan die longbeeld gekoppel en die naam hipertrofiese pulmonale osteoartropatie voorgestel. Hierdie werkers word nou nog vereer met die term 'Sindroom van Bamberger-Marie'. Hierna het die belangstelling in die toestand so toegeneem dat Mendlowitz,⁶ in 'n monogram oor die digitale sirkulasie, meer as 600 verwysings siter wat direk of indirek met trommelstokvingers en pulmonale osteoartropatie verband hou.

Die diagnose is ook nie so maklik as wat ons soms voorgee nie. Pyke⁷ het in 1954 verskeie waarnemers, waaronder senior interniste en kliniese assistente (met minstens M.R.C.P. as nagraadse kwalifikasie) en finale jaar mediese studente, om 'n definisie gevra, en slegs in 3 gevalle was daar 'n mate van ooreenstemming. Daar was ook aansienlike verskille in die uitkenning van gevalle en waarskynlik het bykomstige waarnemings, soos 'n suurstofsilinder langs die bed, en sianose, hulle beïnvloed, aangesien sommige die vinger wat as trommelstok beskryf is by die bed, later nie op 'n foto kon identifiseer nie.

Lovibond,⁸ in 1938, en Mendlowitz,⁹ in 1942, beklemtoon vergroting van die hoek tussen die nael en naelbedvou as die eerste en belangrikste diagnostiese maatstaf. Cudkowitz en Wraith¹⁰ toon miskien die rigting aan vir 'n numeriese maatstaf deur die volume van die terminale 2 cm. van die duim te bepaal. In gevalle met trommelstokvingers was die volume aansienlik groter as dié van die normale kontroles.

Veel werk is gedoen oor die patologiese anatomie van die toestand en dit word volledig deur Bigler¹¹ opgesom in 'n onlangse artikel waarin hy die bevindings by 10 trommelstokvingers en 29 normale kontroles histologies en met verskillende kleurtegniese, bestudeer het. Sy werk dui op die belang van die subunguale glomus as 'n moontlike patogenetiese faktor en sy bevindings van periosteale ver-

anderings beklemtoon die verwantskap tussen akropagie en hipertrofiese pulmonale osteoartropatie.

Die patogenese van die toestand is 'n bron van velerlei teorieë en spekulasies. Van die belangrikstes is dié van Mendlowitz⁶ e.a. wat 'n verhoogde pulmonale sirkulasie voorstel, met 'n bloedvoorsiening in oormaats tot die aanvraag deur die weefsels aan die sistemiese kant van die sirkulasie, vanweë die basiese gelyke uitwerking van die twee ventrikels. Die onbeantwoorde vrae hierop is (i) wat veroorsaak die verhoogde pulmonale sirkulasie? en (ii) deur watter meganisme word 'n verhoogde digitale bloedvloei teweeggebring?

'n Ander teorie wat elke paar jaar op die voorgrond kom, is dié van 'n endokrine steurnis. Gewoonlik word gewys op punte van ooreenkoms tussen akromegalie en hipertrofiese pulmonale osteoartropatie. Freeman¹² het onlangs weereens die saak aangerog deur te wys op trommelstokvingers wat voorkom in miksedeem, en die bevinding by outopsie van veranderinge in die voorste deel van die hipofise in sulke gevalle. Hy beskryf dan ook 'n geval met trommelstokvingers in hipertirose. Hy stel dus 'n disfunksie van die hipofise voor.

Flavell¹³ vestig die aandag op die omkeerbaarheid van die toestand na deursnyding van die vagus by die longhilum en stel 'n refleksmeganisme, waarvan die vagus die afferente baan is, voor.

Enige nuwe teorieë sal al die bekende feite in ag moet neem en ook moet verklaar hoe diverse toestande soos lewersiektes, kroniese diarree, subakute bakteriële endokarditis, tetralogie van Fallot, miksedeem en hipertirose by die beeld inskakel.

Die simmetrie van die aangetaste dele laat ons dink aan die teorie van verhoogde pulmonale sirkulasie van Mendlowitz *et al.* sowel as aan die endokrine-teorie, terwyl die eensydige voorkoms in gevalle met aneurismas van die aorta 'n sirkulasie-meganisme voor die gees roep.

Dit val buite die bestek van hierdie oorsig om op die velerlei geheime van hierdie bekende verskynsel in te gaan. Tog mag dit ons aandag op die vingers van ons pasiënte vestig en die waarheid van West¹⁴ se opmerking (1897) staaf: 'trommelstokvorming is een van daardie verskynsels waarmee ons almal so bekend is dat dit lyk of ons meer daarvan weet as wat werklik die geval is.'

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3. Pigeau, J. (1832): *Arch. gén. Méd.*, 29, 174.
4. Bamberger, E. (1889): *Wien. klin. Wschr.*, 2, 225.
5. Marie, P. (1890): *Rev. méd.*, 10, 1.
6. Mendlowitz, M. (1954): *The Digital Circulation*, p. 114. New York: Grune en Stratton.
7. Pyke, D. A. (1954): *Lancet*, 2, 352.
8. Lovibond, J. L. (1938): *Lancet*, 1, 363.
9. Mendlowitz, M. (1942): *Medicine*, 21, 269.
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11. Bigler, F. C. (1958): *Amer. J. Path.*, 34, 237.
12. Freeman, A. G. (1958): *Lancet*, 2, 57.
13. Flavell, G. (1956): *Lancet*, 1, 260.
14. West, S. (1897): *Trans. Clin. Soc. Lond.*, 30, 60.

POISONING WITH PESTICIDES

This *Journal* has from time to time drawn attention to the grave dangers associated with the use of alkylphosphates (organophosphates) such as Parathion etc. which are used as insecticides in agriculture. Numerous deaths have occurred from poisoning with these agents. They produce irreversible inhibition of cholinesterase, giving rise to muscarinic and nicotinic effects and stimulation of the central nervous system.

A brief review by Conley¹ of the morbidity and mortality from economic poisons in the United States has recently been published, and is of interest to all concerned in the toxicology of these poisons. It is difficult to obtain accurate statistics on this subject, and in any case the statistics are of limited value because the true magnitude of the problem from the economic or the personal aspect is not revealed by them. They fail to measure the problem in human terms, from the point of view of the victim and his family.

Increased attention has been given since World War II to the epidemiology of pesticide poisoning of human beings and to educational and legal measures for its prevention. In California reports of occupational injury from pesticides and agricultural chemicals are published annually. The Committee on Pesticides of the American Medical Association has also in recent years collected data from various sources to determine the incidence of injury caused by these substances. It was found that more than half the states and three-quarters of the cities had no records concerning this form of poisoning. However, through information obtained from coroners, medical examiners, agricultural workers and compensation commissions, it has been possible to publish the series of reports by the Committee on Pesticides that have appeared in the *Journal of the American Medical Association* and are now available in a single bound volume.

In the United States in 1955 nearly 8,000 persons lost their lives from accidental and intentional exposure to harmful chemicals, not including deaths from food poisoning, alcoholism, or venomous animals. Pesticidal chemicals were the cause of 140 recorded accidental fatalities and at

least 208 suicides. Over 200 basic pesticidal chemicals are now available, which adds to the complexity of the statistical problem. More reliable information is available concerning the older chemicals such as arsenic, strychnine, cyanide, and the fluorides, but it is certain that the statistics for pesticide poisoning as a whole are far from complete. There is, moreover, a widespread unfamiliarity with the nature of most of the chemicals used for the destruction of insects and vermin. At a number of centres in America, for instance in New York through the City Health Department, special records are kept of reported cases of poisoning, including telephone calls from the public and from doctors (usually seeking information), postal reports, and emergency-room treatments in hospitals.

In South Africa insecticide poisoning has been gazetted in the Public Health Act as compulsorily notifiable by medical Practitioners. Last year (1957) 108 cases were notified in Natives (1.1 per 100,000 Native population), 1 single case in a European, and none in the Coloured or Indian populations. While exaggerated impressions are to be avoided it is reasonable to assume that the data at present available are incomplete.

In our issue of 6 September 1958 we published an article on the subject by Prof. Douw G. Steyn,² who concluded from the researches of overseas workers that the most effective treatment of cases of poisoning with such organophosphate insecticides was the combined use of atropine, PAM (pyridine-2-aldoxime methiodide), oxygen inhalations and artificial respiration. Any other necessary symptomatic treatment should also be applied, together with washing of the contaminated parts and gastric lavage where indicated. The atropine is given in large and repeated doses and the PAM is administered intravenously to reverse the inhibition of cholinesterase and neuromuscular block. Professor Steyn urged that it was important to make PAM available in South Africa without delay.

1. Conley, B. E. (1958): *A.M.A. Arch. Industr. Hlth.*, 18, 126.
2. Steyn, D. G. (1958): *S. Afr. Med. J.*, 32, 894.