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HERPES ZOSTER AND CHICKENPOX

An epidemiological review of chickenpox[1] is published in the *American Journal of the Medical Sciences* of September 1962 by John E. Gordon,[1] of the Harvard University School of Public Health, Boston, Mass., and in it more space is devoted to the relation with herpes zoster (shingles) than to any other aspect of the subject of chickenpox.

The idea that the two conditions might be due to the same infecting agent dates back at least to 1888, when von Bokay reported cases of chickenpox in children contracted from patients with shingles. Many clinical and epidemiological observations supporting this view have since been recorded, and susceptible children have been shown to develop chickenpox after experimental inoculation from the herpetic lesions of shingles. Viral research on the subject culminated in 1952, when Weller *et al.* succeeded in cultivating a virus in human embryonic tissue culture from the vesicle fluid in chickenpox and in shingles. No difference has been found between the viruses from these two sources.

Clinically the diseases differ widely from each other. Shingles is a local disease and chickenpox a generalized infection. However, in herpes zoster a varicelliform rash occasionally appears on unrelated parts of the body, and sometimes the infection ends in necrosis of the liver and kidney. Chickenpox in ordinary communities is a disease of children; only 2½% of the cases in Massachusetts are in persons of 15 and over. Shingles, on the other hand, is a disease of older persons (14 - 70), and only a few cases occur in children. Chickenpox is practically worldwide, and most people contract it. It is followed by almost certain protection against chickenpox for the rest of life. Herpes zoster has an equally worldwide distribution, but it occurs with relative infrequency, and second attacks are more frequent than with chickenpox. The two conditions coexist practically everywhere.

Gordon[1] has collected nearly a hundred reports of instances in which contacts of shingles patients have developed chickenpox, or contacts of chickenpox patients have developed shingles. Some citations report sizable groups of the two conditions occurring together. Compared with chickenpox, infection from shingles is only very mildly communicable. When secondary cases occur they are far more likely to take the form of chickenpox and to appear in children. Seiler (1949) reported on 184 cases of shingles, 10 of which gave rise to chickenpox amongst contacts (all children except one). Of these patients with shingles 18 gave a history of exposure to shingles (in 7 the contact was remote), and 6 had been in contact with chickenpox and not shingles. Amongst 43 in whom the history was reliable, 28 had had chickenpox, a frequency in accord with the findings of the Medical Research Council of Great Britain.

Hope Simpson in 1954 made an investigation in the island of Yell, in the Shetlands, where outbreaks of both diseases were present. He found that chickenpox deriving from chickenpox patients was indistinguishable clinically from that caught from patients with shingles, the incubation period was the same, infectiousness was equal, and chickenpox from one source protected against that from the other.

Sometimes chickenpox and shingles occur in the same person at the same time. Occasionally, of groups of 2 or more persons exposed simultaneously to chickenpox only or to shingles only, some have developed chickenpox and others shingles. Patients with shingles may develop a chickenpox rash at the same time as the local herpes, or before it, or after it. Patients with chickenpox also, though far less often, may develop the local manifestations of shingles.

These clinical and epidemiological associations of varicella and herpes zoster, recognized over many years, would seem to occur too often to be due to chance.[1] Their indication of an identical *materies morbi* in the two conditions is reinforced by the discovery made years ago that chickenpox can be experimentally communicated to susceptible children from the skin lesions of shingles as well as those of chickenpox, and by the more recent isolation by Weller *et al.*, confirmed by other workers, of the same virus from the two conditions. Serological research has led to the same conclusion. More than 30 years ago complement-fixation and other tests using as antigens the vesicle fluid or crusts in chickenpox and shingles suggested the possible identity of the infecting agents. More recently successful virus cultivation has made available improved serological methods. Complement-fixation studies on sera from both diseases have given similar titres with chickenpox and shingles antigens, these antigens being from vesicle fluid or tissue-culture fluid; and other antibody techniques have given similar results.

That chickenpox and shingles are different phases of infection with the varicella-zoster virus is now generally agreed. Most authorities accept the hypothesis that herpes zoster has its origin in re-activation of the latent virus in the partially immune host, varicella being the primary stage and herpes zoster the recurrent feature (*cf.* Brill's disease and typhus, and also herpes simplex). The association of a chickenpox rash with shingles may be an indication of a still greater loss of immunity. The occasional occurrence of shingles in persons who have been exposed to infection from chickenpox or shingles cases suggests the possibility of a new infection with the varicella-zoster virus as a cause of shingles. If this were the usual cause, however, the incidence of shingles should parallel that of chickenpox and reflect its variations, which it does not.

1. Gordon, J. E. (1962): Amer. J. Med. Sci., **244**, 362.

DIE UITBREIDING VAN MEDIESE HULPFONDSE

Lede van die mediese professie, sowel as lede van die algemene publiek dwarsoor die wêreld, worstel al lank met die probleem van die daarstelling van doeltreffende mediese hulpfondse wat dit vir enige pasiënt vandag moontlik sal maak om dié soort mediese dienste te ontvang wat hy nodig het.

Aan die een kant is daar die universele styging in lewenskoste wat nou so 'n vlak en patroon aangeneem het dat die formules van vroeër jare totaal ongenoegsaam is. Alles is nie net duurder nie, alles is *baie* duurder en word nog steeds duurder. Aan die ander kant is daar ook die feit dat ons basiese kennis, sowel as ons kennis en gebruik van tegnieke, prosedures en apparaat, sodanig toegeneem het dat dit nou inderdaad veel duurder kos om 'n pasiënt grondig te ondersoek en deeglik te behandel. In sommige gevalle is dit nodig dat spanne geneeshere oor lang tydperke saamwerk om die grootste voordeel vir die pasiënt te probeer verkry.

Die gesamentlike resultaat van die faktore wat ons hierbo genoem het en van nog baie meer ongenoemdes, is dat die ou, private, geneesheer-pasiënt verhouding, veral wat betref die ekonomiese aspekte daarvan, buite die willekeurige beheer van indiwidue geraak het. Die meeste mense kan net nie meer betaal vir die mediese dienste en medisyne en hospitalisasie wat beskikbaar is en wat hulle nodig het nie.

Om hierdie redes dus het daar planne en benaderinge dwarsoor die wêreld ontstaan van hoe om dié probleem die hoof te bied. In sekere lande het 'n volledige staatsmediese diens ontwikkel. In ons land, omrede van die ekonomiese samestelling van al sy bevolkingsgroepe en ook omrede van die inslag van sy mense, sal hierdie soort stelsel nie maklik inslaan nie.

In sekere ander lande is versekeringspogings aangewend wat òf deur die geneeshere self òf deur werknemersgroepe georganiseer is. En in nog ander lande word die ekonomiese las van mediese dienste verdeel tussen die pasiënt, versekeringsliggame, en die staat.

In Suid-Afrika het ons ons eie kenmerkende patroon ontwikkel: Die heel boonste klas van gegoede persone moet self betaal al kos die dienste ook al wat. Die laere klasse van mindergegoedes kan gratis of naby-gratis dienste ontvang van private, provinsiale en staatsbronne. En die middelklasse kan gedeeltelik self betaal en/of gehelp word deur mediese hulpfondse, deur bystandsfondse, deur spesiale mediese hulpplanne of deur siekteversekering deur versekeringsmaatskappye.

Ons algemene ondervinding op hierdie gebied was in die verlede egter nie te gelukkig nie. As gevolg van 'n groot aantal faktore, waaronder aktuariële misrekeninge, oordrewe verwagtings van waartoe fondse van dié aard in staat is, en van aberrasies van die menslike natuur as die belangrikstes genoem kan word, het ons nog nie 'n formule gevind wat die meeste probleme oplos nie.

In 'n poging om hierdie probleem op 'n groter skaal te benader as wat nog ooit in die verlede gedoen is, is die Reinach Raad op aanbeveling van die Snyman-kommissie saamgestel. Dit is trouens een van die belangrike aanbevelings van die Snyman-kommissie (wat om allerlei tegniese redes nog nie vir algemene bestudering beskikbaar was nie), wat alreeds voor die verskyning van die verslag geïmplimenteer is.

Ons voel dat hier nou werklik 'n groot geleentheid is om die probleem van vooruitbetaalde mediese hulp op 'n gesonde voet te stel en te bestendig. Maar dan sal hierdie Raad baie versigtig moet loop om in geen van die slaggate van vorige ondernemings te val nie. Slegs langs die weg van gedurige onderhandeling met bevoegde persone en instansies kan sukses verwag word. Om hierdie rede pleit ons vir nougesette en voortdurende samewerking tussen die Mediese Vereniging (wat die verteenwoordigers van die mediese professie is) en die Raad self, wat ook die publiek en die regering verteenwoordig. Ons moet by elke stap naarstiglik toesien dat niks gebeur om die wedersydse vertroue en ondersteuning te versteur nie.

Die probleem is so groot en so belangrik dat ons nie die risiko van nog 'n mislukking durf loop nie. Ons is dit aan onsself en aan ons kinders verskuldig om eens en vir altyd 'n oplossing te probeer vind vir die dringende probleem van die finansieering van mediese dienste in die moderne wêreld. Ook moet hierdie skema, wat om praktiese redes eers net onder die gelede van die blankes begin is, mettertyd uitgebrei word om alle inwoners van ons land te omvat. Want ons kan slegs op die basis van 'n hoë standaard van algemene gesondheid ontwikkel tot 'n gelukkige en welvarende en skeppende gemeenskap.