

# South African Medical Journal

## Suid-Afrikaanse Tydskrif vir Geneeskunde

### VAN DIE REDAKSIE

#### SIMPOSIUM OOR VIRUSSIEKTES

Ons hervat ons bespreking van die simposium oor virussiektes<sup>1</sup> deur die *Practitioner* gereël, waarna ons onlangs verwys het<sup>2</sup> en waartoe verskeie uitstaande navorsers bygedra het.

In die inleidingsartikel van die simposium toon Van den Ende van Kaapstad dat die virus nou duideliker uitgebeeld is. Virusse is ultramikroskopies met relatief ingewikkelde chemiese bou wat hoofsaaklik uit proteïene en kernsuur bestaan. Aan die laasgenoemde bestanddeel kan hul spesifieke aktiwiteit waarskynlik toegeskryf word. Vir navorsers op baie gebiede, o.a. natuurkunde, biochemie, genetica en natuurlik bakteriologie, is virologie 'n jagtershemel. Navorsing in bakteriofage (*bacterium-bacteriophage* stelsel) het byvoorbeeld die proses van binne-sellulêre vermenigvuldiging van die virusse toegelig.

Die immunologiese probleem van griep is deur Andrewes bespreek wat onlangs lesings in Suid-Afrika<sup>3</sup> oor hierdie onderwerp gegee het. Die beheer van griep deur enting sal beteken dat miljoene mense elke ander jaar ingespuut moet word. Dit is twyfelagtig of dit vir gewone griep prakties sal wees. Die skrywer wys daarop dat die ontwikkeling van entstowwe hoofsaaklik nodig is om vir 'n dodelike pandemie, soos dié van 1918-19, die hoof te bied. Doeltreffende entstowwe teen griep kan vervaardig word maar hul lok onaangename reaksies uit en dit is moeilik om die waarde van die entstofproefresultate te bepaal; dit is veral te wyte aan die feit dat dit moeilik is om die siekte klinies te diagnoseer. Selfs 'n serologiese diagnose wemel met strikvalle en as die hele gemeenskap ge-ent is, is dié diagnose van minder waarde as gewoonlik. Dit is 'n gewigtige vraagstuk want as virusse gedurig veranderings ondergaan (aangesien hul antigenies nie stabiel is nie) volg dit dat nuwe entstowwe vervaardig moet word en hul immuniserende uitwerking mag varieer. Dit sal moeilik wees om 'n langdurige immuniteit te verkry. Andrewes doen aan die hand dat die mees effektiewe entstowwe opsy gesit word vir belangrike mense wat sleutelposisies beklee en vir ander wat daarvoor vra. Om entstowwe op groot skaal te vervaardig, wat veilig en doeltreffend is, neem betreklik lank en dit is 'n praktiese probleem waarmee rekening gehou moet word as enige poging om 'n epidemie of pandemie te beheer, oorweeg word.

Immunisasie teen poliomiëlitis het in die jongste tyd wye publisiteit ontvang en tot dusver kom dit voor asof redding teen die gevreesde siekte hoofsaaklik by immu-

### EDITORIAL

#### THE VIRUS DISEASE SYMPOSIUM

We return to the *Practitioner's* symposium on virus diseases<sup>1</sup> to which we referred recently,<sup>2</sup> and which included contributions by several distinguished investigators.

In the introductory article to the symposium van den Ende, of Cape Town, shows how a clearer picture of the virus is emerging. Viruses are ultra-microscopic and to be regarded as relatively complex chemical structures in which the essential constituents are protein and nucleic acid. The latter substance probably gives them their specific activity. Virology is a happy hunting-ground for research workers from many fields, including physicists, biochemists, geneticists and of course bacteriologists. Research on bacteriophage (*bacterium-bacteriophage* system) has led to the elucidation, for example, of the process of intracellular multiplication of viruses.

The immunological problem of influenza is discussed by Andrewes, who recently gave lectures on this subject in South Africa.<sup>3</sup> Vaccination to control influenza would mean the injection of millions of people every other year. Its practicability for ordinary influenza is questionable. The main justification for developing vaccines, the author points out, would be for the control of a lethal pandemic like that of 1918-19. It is possible to make potent influenza vaccines but they cause unpleasant reactions, and the results of vaccine trials have been difficult to assess. The main reason for this has been the difficulty with which the disease is diagnosed clinically. Even serological diagnosis has its pitfalls, and it has less than its normal value if the community has been vaccinated. It will be difficult to get an answer to this problem, for if viruses are constantly changing (being antigenically unstable) vaccines must be changed, and differences may occur in their potency as immunizing agents. Long-lasting immunity will be difficult to achieve. Andrewes suggests that it may be best to reserve the most effective vaccine for important people in key positions and for others who may demand it. It takes quite a long time to make vaccines of potency and safety on a large scale, which is another practical difficulty that has to be faced in any attempted control of an epidemic or pandemic.

nisasie berus. Bradley gee 'n oorsig oor die huidige posisie i.v.m. poliomiëlitisvoorbewoeding. Hy meen dat die oplossing by kunstmatige immunisasie gevind moet word maar dat dit tyd sal neem om vas te stel of blywende immuniteit verkry kan word sonder om inspuittings te dikwels te herhaal. Daar bestaan geen twyfel oor een voorbehoedingsmaatreël nie—as daar poliomiëlitis heers, moet mangeloperasies nie uitgevoer word nie.

In sy toespraak oor die gewone verkoue as 'n virus-probleem, beklemtoon Roden die moeilikhede wat met die diagnose ondervind word. Studies oor die oordra van verkoues deur die mens vorder maar stadig, maar as gevolg van dié studies is sekere hoedanighede van die virus van die gewone verkoue nou vasgestel. Daar bestaan nog geen laboratoriumtoetse nie wat die teenwoordigheid van faktore, wat verkoues veroorsaak, kan bespeur nie.

Die belangrikheid van Coxsackie-virusse en virus-siektes in dié trope word deur Beeman en deur Dick behandel en in 'n slotverhandeling bespreek Watson die virussiektes vanuit die gesigspunt van algemene praktyk in Engeland. Hierdie artikels sal veral vir die algemene geneesheer boei; hul gaan oor diagnose, verpleging, behandeling, epidemiologie en navorsing. Interessant is die verwysing na die afdeling van die *College of General Practitioners* wat belas is met die waarneming van epidemies. Die afdeling is ingestel om sekere aspekte van virussiektes te bestudeer soos dit deur die praktisyns waargeneem en aangeteken is.

Die oorspronklike artikels bevat inligting oor baie ander virussiekte-probleme. Watson noem die volgende as voorbeelde van vraagstukke wat op toeligting wag:— die tydsduur van aansteeklikheid voordat en nadat simptome voorkom; of die eerste geval van masels en waterpokkies in 'n huis ligter is as gevalle wat daarop volg; die epidemiologie van griep en poliomiëlitis in die tussentydperke van epidemies; ondersoekmetodes i.v.m. die epidemiologie van klierkoors en sekere ander siektes; die behandeling van akute gevalle van virussiektes en die komplikasies wat daarop volg. Miskien sal daar nie genoeg gevalle in een praktyk voorkom nie om antwoorde op die vraagstukke te voorsien nie, maar dié saamgevatte inligting en die pligsgetroue waarneming van baie geneesheer kan uiteindelik tot belangrike ontdekkings lei.

1. Simposium oor virussiekte (1954): *Practitioner*, **173**, 525—586.
2. Van die Redaksie (1955): *S.-Afr. T. Geneesk.*, **29**, 29.
3. Andrewes, C. H. (1955): *Ibid.*, **29**, 2.

There has been much publicity given lately to immunization against poliomyelitis, which appears to be the main hope in preventing this dreaded disease. Bradley reviews the present position regarding poliomyelitis prophylaxis. He considers that artificial immunization offers the best hope of preventing the disease but time is required to determine whether permanent immunity will be obtained without too frequent booster injections. About one prophylactic measure there is no doubt, namely the discontinuance of tonsillectomy when poliomyelitis is prevalent.

In his discourse on the common cold as a virus problem Roden emphasizes the difficulties of diagnosis. Progress with studies of human transmission has been slow, but certain properties of the virus of the common cold have been established from them. No laboratory test has been discovered to detect the presence of the causal agents of the common cold.

The importance of Coxsackie viruses and virus disease in the tropics is considered in articles by Beeman and by Dick, and in a final paper Watson considers virus disease gauged from a country practice in England. This section will particularly interest the general practitioner; diagnosis, nursing instructions, treatment, epidemiology and research come into the picture here. Interesting is the reference to an epidemic observation unit of the College of General Practitioners which has been instituted to study certain aspects of virus disease as seen and recorded by practitioners.

For the many other problems of virus disease dealt with the original articles should be consulted. The following features are mentioned by Watson as examples of problems requiring elucidation: the duration of infectiousness before and after the onset of symptoms; whether secondary cases of measles and chicken-pox in a house are more severe than the primary case; the epidemiology of influenza and poliomyelitis between epidemics; methods for studying the epidemiology of glandular fever and certain other diseases; the treatment of acute virus diseases and their complications. In any one practice there may not be enough examples to furnish answers to such questions, but pooled information and faithful observations from many doctors may ultimately lead to important discoveries.

1. Symposium on Virus Disease (1954): *Practitioner*, **173**, 525-586.
2. Editorial (1955): *S. Afr. Med. J.*, **29**, 29.
3. Andrewes, C. H. (1955): *Ibid.*, **29**, 2.

## THE MEDICAL CONGRESS AT PRETORIA

We publish in this number (page XVIII) the preliminary circular issued by the Organizing Committee of the 40th South African Medical Congress, which is to be held in Pretoria in October of this year. This is Pretoria's centenary year, and a feature of this Congress is that the official opening of the 3 week's Centenary Celebrations will take place during Congress week. These celebrations should add considerably to the social interest of the Medical Congress. Moreover the jacaranda trees flower in October, and if Nature is in complacent mood

the scene in which the combined celebrations will be set should be beautified with this yearly display.

The coincidence with the Centenary Celebrations renders it all the more advisable to make early reservation of hotel accommodation, and this should serve as a reminder to members to send early notice to the Honorary Secretaries of Congress of their intention to attend.

The Plenary Sessions will be devoted to the subject of *Cancer*, the many aspects of which will furnish a vast field from which to draw, and 19 Congress Sections are

announced. The Organizing Committee request contributors of papers to submit their synopses by 31 July at the latest, and the full papers by 7 September. Members, therefore, who intend to submit contributions should not delay their preparation. The policy of holding combined meetings of Sections for the discussion of subjects of common interest, which in recent years has become a feature of Congress, will be continued, and heads of Sections are asked to establish liaison with each other in order to make the necessary arrangements.

The Congress is being organized under the chairmanship of Dr. J. H. Struthers, President-Elect of the Association and Vice-Chairman of Federal Council, who is supported by a powerful team of officers and committee members and a meeting well maintaining the high standard that the South African Medical Congress has attained in recent years may be confidently anticipated. We hope it will receive the support of a large attendance of Association members.