BRITISH PAEDIATRIC ASSOCIATION

PROCEEDINGS OF THE TWENTY-FIFTH GENERAL MEETING

The twenty-fifth annual general meeting of the British Paediatric Association was held at The Old England Hotel, Windermere, from April 28 to 30, 1954.

BUSINESS PROCEEDINGS. The President, Dr. B. E. Schlesinger, was in the Chair, and the following members were present:


The Minutes of the last annual meeting were approved.

ELECTION OF OFFICERS. The following were elected by ballot for the year 1954-55:

PRESIDENT: Professor S. Graham.
TREASURER: Dr. R. C. Lightwood.
SECRETARY: Dr. P. R. Evans.
EXECUTIVE COMMITTEE (for three years):
Professor R. W. B. Ellis.
Dr. J. Hay.
Dr. H. Everley Jones.
Professor A. Moncrieff.

These were elected to replace Dr. R. H. Dobbs, Professor J. L. Henderson, Professor A. V. Neale, Dr. R. E. Smith.

ELECTION OF NEW MEMBERS. The following were elected by ballot to membership of the Association:

HONORARY MEMBER: Dr. B. E. Schlesinger.

CORRESPONDING MEMBERS:
Dr. Seymour Heymann (Johannesburg).
Professor R. McIntosh (New York).
Professor B. Vahlquist (Uppsala).

ORDINARY MEMBERS:
Dr. S. P. Dundon (Dublin).
Dr. W. H. Galloway (Aberdeen).
Dr. J. W. Gerrard (Birmingham).
Dr. H. R. Jolly (Plymouth).
Dr. G. M. Komrower (Manchester).
Dr. R. Mayon-White (Ipswich).
Mr. D. J. Waterston (London).

The TREASURER’S REPORT was received and approved.

The REPORT OF THE EXECUTIVE COMMITTEE was received and approved and is printed below.

The Hon. Secretary made a statement on the proposed joint meeting in Quebec, 1955.

The draft memorandum on children’s hospitals was received and the President summarized various proposed modifications. It was agreed that the final form should be prepared and circulated to all members.

The Association had the honour of entertaining Sir Russell Brain, President of the Royal College of Physicians, at the annual dinner; and also as this was the twenty-fifth annual meeting, the following corresponding members were present with their wives: Dr. P. F. Armand Delille, Professor G. Frontali, Professor Alton Goldbloom, Dr. R. R. Struthers, Professor A. Sundal.

There were 24 guests present, including four from overseas who were working in this country.

The Windermere Lecture was delivered by Professor Alton Goldbloom.

Professor R. A. McCance presented a pair of silver pap boats to the Association, and Dr. G. Davison presented a collection of photographs taken at Association meetings since 1948.

Report of the Executive Committee 1953-54

1. The Association will wish to congratulate Dr. W. Sheldon on the award of the C.V.O.; Dr. Harold Waller on receiving the F.R.C.O.G.; Professor A. Wallgren on receiving the Hon. LL.D.
Professor E. Gorter, London School of Hygiene and Tropical Medicine.

2. The Executive Committee has met three times since the last Annual General Meeting and the following is a summary of matters with which it has been concerned.

3. Guests at Annual Meeting. By a large majority members have agreed to special arrangements every third year limiting guests to (a) those giving communications; (b) new members whose election is to be ratified at the meeting; and (c) visiting paediatricians from the Commonwealth and elsewhere overseas who are in the United Kingdom at the time of the meeting. It was agreed that 1954 should be regarded as a suitable time to start this new arrangement. In addition, as the 1954 meeting was the twenty-fifth, it was agreed to invite all corresponding members and their wives to attend the Windermere meeting as guests of the Association.

4. International Congress, Havana, 1953. Ten members and two non-members were present and it was regretted that only a few of them were able to take an active part in the proceedings. The next international congress is planned for Copenhagen in 1956.

5. Visit to Holland. A party of 25 members will be the guests of the Dutch Paediatric Society in Holland at the end of May, 1954, and five communications will be given by members of the party.

6. Meeting in Quebec, 1955. The Canadian Pediatric Society and the American Pediatric Society are hoping to be joined by a delegation from the British Paediatric Association at a joint meeting in Quebec in June, 1955, before the joint Canadian Medical Association and British Medical Association meeting in Toronto.

7. Archives of Disease in Childhood. Dr. R. H. Dobbs has been nominated to succeed Dr. P. R. Evans as joint editor with Dr. I. A. B. Cathie. A special resolution of thanks to Dr. Evans was passed at a meeting of the Executive Committee. Professor F. M. B. Allen and Dr. P. R. Evans were nominated to succeed Professor R. W. B. Ellis and Professor W. Gaisford on the editorial board for 1955.

8. Future of Children's Hospitals. At the request of the Paediatric Committee of the Royal College of Physicians, the Association has been asked to submit its views on this subject. A sub-committee and the Executive Committee have considered the matter on several occasions and in view of its importance the final report is being submitted to the Annual Meeting.

9. Recruitment of Nurses in Children's Hospitals. Careful consideration has been given to a statement that there has been a serious reduction in the number of nurses recruited for six provincial children's hospitals since the new lower age limit of 18 years has been imposed. The attention of the Ministry of Health and of the General Nursing Council has been called to this matter and it has been decided to consider it again when the figures for the first six months of 1954 are available.

10. Paediatric Education. Progress in securing information has been slow and reports from about half the centres have been received and forwarded to the World Health Organization.

11. Home Office Committee on Adoption. Suggestions received from four members were forwarded to the Home Office.

12. Work of Sub-committees. In addition to the special work on children's hospitals already mentioned, the joint committee with the Royal College of Obstetrics and Gynaecology on prematurity has continued to meet and the new sub-committee on prophylactic immunization is preparing a memorandum. Matters within the interests of the other standing sub-committees have been dealt with by correspondence as they arose.

13. 'Observers'. The Association is frequently consulted by official and unofficial bodies, and observers attend meetings on its behalf. The Public Health Committee of the British Medical Association forwards all documents to the Hon. Secretary who may attend meetings for any items in which the Association is likely to be interested.

14. New Officers. The Association will be pleased to learn that Dr. H. C. Cameron has agreed to act as 'historian' and write the story of the first 25 years of its activities. A warm welcome will also be given to Dr. P. R. Evans as the new Hon. Secretary.

15. The Association has suffered the loss since its last Annual Meeting of Dr. T. Y. Finlay and Professor E. Gorter.
Scientific Communications

DR. MALCOLM MACGREGOR (Warwick). 'Pseudo-Hypoparathyroidism.' This paper will be published in full.

DR. W. W. PAYNE (London) reported on the present status of 39 diabetics who had started their disease in childhood. For the past 15 to 20 years all have been having a 'free' diet and enough insulin to control symptoms. The blood sugar level was kept as low as possible. No case had hepatomegaly, peripheral, vascular, or neuritic symptoms. Of the 19 cases under treatment for 15 to 19 years, nine were free from retinitis and none had any degree of visual disturbance, two had hypertension and three albuminuria; of the 20 cases treated for 20 to 30 years, seven were free from retinitis and four had some degree of visual loss, four had hypertension and six albuminuria. As these results compared favourably with similar series treated with strict dietary control, it was concluded that strict dietary control in juvenile diabetics was unnecessary.

DR. THOMAS STAPLETON (London). 'The Pattern of Electrolyte-Excretion in Babies Born to Diabetic Mothers.' The excretion of sodium, potassium and chloride by babies born to diabetic mothers has been studied during the first three days of life. Using the excretion per kilogram of lowest weight as the standard of comparison, it is concluded that the excretion is within normal limits for the gestational age.

DR. M. F. G. BUCHANAN (Leeds). 'Foetal Distress and Asphyxia at Birth.' Certain paediatric aspects of a combined paediatric and obstetric study of foetal distress were presented. The object was to assess the condition at birth of infants delivered following foetal distress, as compared with other infants, in a series of 550 live births. Foetal distress was considered to be present if, in the first or second stage of labour the foetal heart rate rose above 160 beats per minute or fell below 100, or if meconium was passed in cephalic presentations. A second group of infants was selected on the basis of lesser changes in the foetal heart rate: within this group were included all cases in which the foetal heart rate rose or fell from its previous level by 20 or more beats per minute. On these criteria there were 84 cases of foetal distress and 80 cases of the second group of rises or falls of 20 or more in the foetal heart rate.

To simplify comparison, infants failing to breathe within one minute of delivery were considered to be suffering from asphyxia. Infants delivered under general anaesthesia were separately analysed. Of those cases (58) in whom there had been neither foetal distress nor rise or fall of 20 or more in the foetal heart rate, 27 (46%) showed asphyxia. In those with foetal distress, 17 out of 24 (71%) showed asphyxia. The intermediate group of changes in foetal heart rate was also followed by a high incidence of asphyxia but the figures (12 out of 16 infants) are too small to be of value.

Fifteen infants died in the neonatal period. All but one had shown asphyxia at birth. Three who had shown foetal distress breathed regularly between five and 10 minutes whereas three out of four with intermediate changes in foetal heart rate breathed in under five minutes, again suggesting that foetal distress is followed by more prolonged asphyxia.

It was concluded from this series that foetal distress was followed by significantly more prolonged asphyxia than in other infants. The group of infants who had shown a rise or fall of 20 or more beats in the foetal heart rate also revealed a higher incidence of asphyxia, being intermediate between the normal and the foetal distress group.

DR. I. A. B. CATHIE (London). 'The Serology of Toxoplasmosis.' The clinical particulars accompanying sera from 456 cases suspected to have toxoplasmosis, received from all over the country, were reviewed. Choroido-retinitis, intracerebral calcification, hydrocephalus and mental retardation were the commonest clinical signs in cases in which there was positive serology. Undiagnosed lesions of the central nervous system were only rarely positive, while the more exotic symptoms elsewhere in the body were invariably negative. The presence of toxoplasmas in the cerebrospinal fluid of one case of clinical toxoplasmosis with what was thought to be diagnostic serology was demonstrated.

Attention was again drawn to the number of cases giving positive serological tests as age advances, and a series of children with generalized lymphadenopathy, pyrexia and eosinophilia was described in which the toxoplasma antibodies reached diagnostic titres; it was thought that this type of illness might account for the presence of antibodies in the healthy adult.

DR. JANET ROSCOE (Cambridge). 'The Early Anaemia of Prematurity.' The blood picture of 26 healthy premature infants of birth weight below 3 lb. 9 oz. was followed over the first four months of life. Venous samples of blood were taken at one to two weekly intervals. Marrow samples were also taken at various stages.

The possibility of a raised rate of destruction of premature red cells was considered with special reference to the changing level of calculated total circulating haemoglobin. However the maximum rate of fall of total haemoglobin lasting some 20 to 30 days was no more than the calculated rate of normal decay of red cells.
The rapidity of body growth of these premature babies, often exceeding 3% per day, contributes greatly to the precarious balance of erythropoiesis. And it largely accounts for the maintenance of low haemoglobin levels once anaemia has developed, but not for the fact that anaemia develops in the first place.

The marrow is not qualitatively different from that of normal infants. But it is not until the haemoglobin has fallen substantially below 11 g. per 100 ml., in fact to the region of 7 to 9 g., that a rise of marrow erythroid cells and a reticulocytosis occur. The response to anaemia is slow and thus fails to arrest in time the post-natal fall of haemoglobin.

Iron was given not later than the third week to 13 infants and their haemoglobin levels were compared with 13 controls who were only given iron when their haemoglobin had fallen to 11 g. The average fall of haemoglobin in those given iron early was arrested about the fiftieth day of life (as in normal infants) and remained at about 1 g. higher level thereafter. The early anaemia of prematurity was thus mitigated but not prevented by giving iron early.

Dr. R. I. Mackay (Manchester). 'The Treatment of Tuberculous Meningitis.' This paper represents a simple report of the experiences of a number of paediatric physicians in the Manchester area for a period of three years, from April, 1951, to April, 1954. Seventy-nine consecutive patients received various forms of treatment for tuberculous meningitis and in addition seven relapsed cases completed a second course of treatment.

The cases fall into four groups, according to the mode of treatment, the first two groups before the introduction ofisoniazid, and the fourth group including cases which received no intrathecal treatment whatever. The results suggest that it is possible to treat tuberculous meningitis with streptomycin and isoniazid without recourse to intrathecal treatment and that advanced cases, cases with miliary tuberculosis and relapses may be treated with a similar hope of success as when intrathecal treatment is used. There is a notable absence of obstructive intracerebral complications in group 4. The immediate results on a limited follow-up compare favourably with cases treated with intrathecal streptomycin.

### PERCENTAGE SURVIVAL RATE ACCORDING TO TYPE OF CASES

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<th>Groups 1 and 2</th>
<th>Group 3</th>
<th>Group 4</th>
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<tr>
<td>Without miliary</td>
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<tr>
<td>tuberculosis</td>
<td>59·2</td>
<td>91</td>
<td>84·5</td>
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<tr>
<td>With miliary</td>
<td>33·3</td>
<td>84·6</td>
<td>91·8</td>
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<td>tuberculosis</td>
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<td>Early</td>
<td>75</td>
<td>100</td>
<td>85·8</td>
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<tr>
<td>Advanced</td>
<td>33·3</td>
<td>57</td>
<td>91</td>
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John Lorber (Sheffield). 'A Controlled Trial of Isoniazid in the Treatment of Tuberculous Meningitis.' Twenty-two patients who were conscious on admission were allocated by random sampling to two treatment groups, 10 being controls and 12 being given isoniazid. The treatment was otherwise identical in the two groups. Intrathecal streptomycin treatment was given in both groups in all cases.

Eight of the 10 controls and 11 of the 12 cases given isoniazid survived. The average period of observation was 16 months in the controls and 13 months in the isoniazid group. None of the patients have serious sequelae and none are deaf.

Patients in the group given isoniazid required fewer intrathecal injections of streptomycin (average 65) as compared with the controls (average 90).

The cerebrospinal fluid in the isoniazid group approached normal more rapidly, but showed significant deterioration in six children after one course of intrathecal treatment had been concluded, and so necessitated further intrathecal streptomycin treatment.

In one child tubercle bacilli reappeared in the cerebrospinal fluid during treatment with isoniazid.

It is concluded that isoniazid is a valuable addition to other drugs in the treatment of tuberculous meningitis, but it has not eliminated the need for intrathecal streptomycin.

Dr. J. Hart-Mercer (Newcastle upon Tyne). 'Lipoid Reticulo-endotheliosis (Hand-Schüller-Christian Disease).' In the last four years 13 cases of this disease have been encountered in the Child Health Department. There were seven deaths with six necropsies. A pathological study of the post-mortem material has yielded the following observations:

The pulmonary lesions, extensive and bilateral, in all six cases, seemed to be the most lethal. They were always attended by right cardiac dilatation and in three cases by cor pulmonale. The gross picture in the three older children was that of honeycomb lungs but close examination of the others revealed a number of small developing cysts. A study of serial sections on the two most acute cases showed that the cysts began as dilatations of damaged respiratory bronchioles in foci of histiocytic bronchopneumonia.

Lesions in other organs including particularly pituitary (four cases), lymph nodes, spleen, thymus, bone, liver and skin revealed a variety of histological structure ranging from eosinophilic granuloma and pure infiltrations of proliferated reticulum cells to xanthomatous deposits and fibrous scar formation. The liver was affected in five cases. Here the
histiocytic infiltrations were confined to portal tracts and in three cases had led to xanthomatosis of the larger bile ducts; in one there was also advanced and in two early biliary cirrhosis.

Of the six surviving cases the diagnosis has been established or confirmed by biopsy. All presented with symptoms referable to bone, three now have controlled diabetes insipidus and remain well, one having been followed for nearly four years. In two with radiological lung involvement and splenic or lymph node enlargement the prognosis is more guarded and in one with marked lymphadenopathy and progressive anaemia the outlook seems poor.

**Dr. Paul E. Polani** (London). ‘Some Aetiological Factors in Congenital Heart Disease.’ A statistical study was made of 377 patients with congenital heart disease and their families, seen in the Cardiac Department of Guy’s Hospital. They were subdivided into six clinical groups, and cases of mongolism and of the rubella syndrome were excluded. It was found that the chance of a child being born with Fallot’s tetralogy increased with maternal age (40-44 years). Malformations of the heart among siblings born after an affected child were 20 times as common as in the general population. There was an excess of males among patients with Fallot’s tetralogy, aortic stenosis, coarctation of the aorta and, probably transposition of the great vessels; the influence of sex was studied on an additional 642 cases. The patients showed an excess of associated malformations even when mongolism, transposition of the viscera, cataract and/or deafness and arachnodactyly were omitted. The incidence of congenital heart disease appeared to be influenced by the season of conception and birth in relation to sex.

**Dr. J. S. Oldham** (Birmingham). ‘Observations on the Diagnosis and Prognosis of Congenital Heart Disease in Infancy.’ One hundred infants under 1 year of age with congenital heart disease have been studied. In 46 permanent cyanosis was a symptom. In 19 of these cases heart murmurs were absent. Absence of murmurs suggests a complex malformation. Diagnosis in cyanotic congenital heart disease depends primarily on radiographic examination. In tetralogy of Fallot the heart was little if at all enlarged and the characteristic cardiac silhouette was usually present. The combination of cyanosis and pulmonary congestion was most commonly found with complete transposition of the great vessels. Angiocardiography was a valuable aid to diagnosis. Prognosis in this group is bad. Thirty-one of the 46 patients died before 1 year of age.

In 54 infants cyanosis was absent throughout, or occurred only as a transient or terminal event. Twenty-one died within the first year of life. The most important defect in this group is a patent ductus arteriosus, a lesion which can be cured, and which when producing symptoms in infancy has a bad prognosis. Of nine such cases in this series five died. In the diagnosis of patent ductus arteriosus a full pulse has been the most helpful physical sign. Electrocardiographic evidence of left ventricular strain was present in four of nine cases examined. In this age group a firm diagnosis often cannot be made without special methods of investigation.

When congenital heart defects produce symptoms during the first year of life the immediate prognosis is bad and full investigation should not be delayed.

**Dr. Gavin C. Arneil** (Glasgow). ‘The Hypertensive Plasma Factor in Acute Nephritis.’ The cause of the arterial hypertension often present at the onset of acute haemorrhagic nephritis has not been proved. Since the discovery of renin it has seemed likely that the humoral pressor system actuated by this enzyme is responsible. Plasma from 13 patients with acute nephritis and hypertension has been shown to contain an excess of a vasopressic substance when injected intravenously into rats. By using a ganglion blocking agent and destroying pituitary vasopressin chemically it was shown that this pressor activity was probably due to the presence of an excess of angiotensin (hypertensin) in the plasma which also contained an excess of renin. The plasma angiotensin potency following incubation is suggested as a satisfactory method of assessing the vasopressic activity since the plasma hypertensinogen and hypertensinase levels are normal in acute nephritis and this estimation obviates the need to freeze the plasma immediately after withdrawal from the patient.

**Dr. R. G. Mitchell** (Dundee). ‘The Urinary Excretion of Histamine in Allergic Diseases.’ The daily excretion of free and conjugated histamine in the urine was measured in 24 children who suffered from allergic diseases. The urine was collected during acute allergic attacks in 10 of the children and in the interval between attacks in 14. The total amount of histamine excreted daily was within normal limits for both groups, but there was a significant reduction in the excretion of free histamine during the acute attacks.

Oral administration of cortisone during acute allergic attacks in adults resulted in an increase in the excretion of free histamine, which, in two patients, was considerably greater than the increase observed after cortisone administration to healthy adults.

**Professor Alan Moncrieff** and **Dr. R. H. Wilkinson** (London). ‘Sucrosuria with Mental
Defect and Hiatus Hernia.' Three instances were described of the association in early childhood of sucruria, mental retardation and an anomaly of the lower end of the oesophagus, thus producing the three types of congenital abnormality in the one subject—inborn metabolic error, mental defect and an anatomical abnormality. Necropsy findings in one case revealed a congenital defect in the brain, thus ruling out any hypothesis that the mental retardation might be associated with a sucrasaemia. It was concluded that the sucruria resulted essentially from rapid absorption of the unsplit disaccharide but technical difficulties made it impossible to investigate further the failure of splitting or its degree. The previous, scanty literature mostly deals with similar instances, as far as the sucruria is concerned, of exogenous origin. Careful study of the sugars fed and subsequently passed in the urine revealed a more complicated story than that of excessive alimentary absorption of sucrose and urinary excretion. Provisional 'normal’ values for urinary sugars obtained by chromatography were suggested. The close association of lactose and sucrose in the diet in relation to the occurrence of sucrose in the urine seemed definitely established in the cases reported. Glucose metabolism was unaffected.

The following papers were also given: Mr. A. N. Guthkelch on 'Diastematomyelia'; Dr. N. R. Butler on 'Possibilities of Triple Immunization in Infancy with Special Reference to Tetanus.'