ABSTRACTS

(This section of the JOURNAL is devoted to selected abstracts of articles on social medicine appearing in the current literature. The section will be edited in collaboration with the two abstracting Journals, Abstracts of World Medicine, and Abstracts of Surgery, Obstetrics and Gynaecology.)


Preconceptions concerning the influence of season and other aetiological factors on the epidemiology of poliomyelitis are not infrequently shattered by the appearance of the disease under most unexpected circumstances.

The authors describe an unprecedented outbreak in the Chesterfield area of Hudson Bay as far north as 65 degrees and between 90 and 100 degrees west. The outbreak involved 500 Eskimos trading with one group of people and 275 trading with another group. Of these 14 per cent. were paralysed and over 5 per cent. killed by outbreaks between September, 1948, and February, 1949, in the first group, and between February 14 and March 7, 1949, a period of strikingly short duration, in the second group. From the tables given in the paper it appears that the mean temperature was below freezing point throughout this period and, in fact, below zero from December to January.

The diagnosis was confirmed by production of the disease in monkeys. In some ways the disease was not entirely characteristic clinically. For example, the brunt of the disease appears to have fallen on the lower cord, whence infection ascended to involve the respiratory muscles and there was very little evidence of meningeval or bulbar, or cerebral involvement.

This report is full of interesting detail. Unfortunately the epidemiological procedures which led the authors to their conclusions are not always stated and it is not always clear on what grounds they exclude certain routes of infection. Nevertheless, they were able to trace the transportation of disease along the routes of human movements, and to identify persons who seemed very probably to have been connected in some way with transmission of the disease. It is, in fact, difficult to escape their conclusion that spread appears to have been largely through the medium of clinically healthy carriers.

These outbreaks were particularly remarkable as regards age distribution. The percentages of persons available attacked in the age groups 5 to 9, 10 to 14, 20 to 24, 30 to 34, 40 to 44, and 45 to 49, were about the same: the highest attack rate of 42 per cent. occurred in the age group 15 to 19, and [what is most surprising of all] the lowest attack rate (4 per cent.) was amongst 53 children under 4 years, no case occurring in a child under 3 years of age.

Perhaps the most stimulating remark made by the authors is that "in the usual epidemic of poliomyelitis in regions well populated by white people, isolation and quarantine are rarely seriously attempted and commonly thought to have little effect; experience suggests that under these circumstances the disease is transmitted only after most intimate contact. Such a casual attitude is evidently not justified when dealing with this infection amongst Eskimos. One cannot escape the conviction that spread of the virus to similar Eskimo communities will cause comparable damage. In July when the ice and snow melt the whole environment of Chesterfield will be heavily contaminated, and no doubt many of the Eskimos will be carriers. If the boat traffic is allowed to operate in the usual way, there will be intimate contact with boat crews and there will be real danger of carrying the virus over a wide area."

W. H. Bradley


A description of an unprecedented outbreak of poliomyelitis in the Arctic during the winter of 1948-9 has already been given by Adamson and others (Canad. med. Ass. J., 1949, 61, 339; Abstracts of World Medicine, 1950, 7). Further epidemiological detail is now provided by the Division of Epidemiology of the Department of National Health and Welfare, Ottawa. While in the whole area of the epidemic there was an abnormally high case rate of 84 per 1,000 population and a mortality of 2 per cent., in the Chesterfield Inlet area the attack-rate for paralytic poliomyelitis was 185 per 1,000, the mortality 5 per cent., and case fatality rate of 27-4 per cent. This outbreak demonstrates that poliomyelitis is capable of appearing in epidemic form even under extremely cold climatic conditions and the author suggests that the immunity of the population is probably a more important factor in the control of poliomyelitis than climatic changes. Under these Arctic conditions it can be concluded that flies are not an essential factor in the spread of poliomyelitis. The close proximity in which Eskimos live in families and camps, together with their almost total lack of sanitation and personal hygiene, would appear to be factors facilitating the spread of the disease. Specimens of brain and cord tissue, stools, and throat washings were shipped by aeroplane in the frozen state to Toronto and provided ample evidence of the presence of poliomyelitis virus, by producing typical clinical and histological appearances in rhesus monkeys, the clinical diagnosis of acute anterior poliomyelitis
involved in the outbreak, and the virus not being found in only two of seven specimens examined.

[Article, composite, report is being prepared in Ottawa and it is reassuring to know that this phenomenal outbreak will be properly recorded.] W. H. Bradley


The authors present an account of their study with a review of the history of poliomyelitis in South Australia. In the first recorded outbreak in 1895 there were fourteen cases in a small seaport with a population of 1,500 persons. There had been no cases in this port since 1887, when the only previous case was recorded. The next "epidemic" in South Australia was in 1922, when 47 cases were notified. In the summer of 1937-38 South Australia suffered as did the other States in the Australian Commonwealth. Ten years later the outbreak described occurred, the initial rise appearing in the final week of 1947, when 43 cases out of a total of 55 cases in the year were notified in a population of 600,000. The total of notifications had reached 126 up to June, 1948.

The authors made a detailed investigation of extra-urban cases and they found it best to interrogate families personally some weeks after the occurrence of the disease rather than immediately. These inquiries were preceded by the completion of a questionnaire sent by post to the patients' relatives at the time of notification. The present paper includes tabular statements of information derived from these sources. The clinical manifestations were not unusual, although there was an incidence of paralytic cases was 19-4 per cent. (twenty of 103 cases).

The investigations produced no evidence that transmission had been by animal, bird, or insect vector, and all routes of transmission other than alimentary and by contact appeared to be eliminated by the data produced. On the whole, the evidence was in favour of contact transmission and the authors state that the more fully they were able to investigate all contacts in rural cases the more they found evidence of contact with a preceding case of paralytic or non-paralytic poliomyelitis. This applied also to the few urban cases which were studied.

An attempt was made to obtain a clearer definition of the incubation period by calculating from the "earliest prodromal date". The mean incubation period in 25 cases was 10-56 days. In this outbreak recognizable non-paralytic cases numbered approximately twice those with paralysis. The authors made a statistical analysis of symptoms in sixty non-paralytic cases and were able to establish the symptom identity with paralytic poliomyelitis.

This outbreak showed a shift to a higher age incidence between the 1947-49 epidemic and the preceding large epidemic in 1937-38. There was also a strong indication of a shift towards a higher age incidence when the cases in the first and second half of the outbreak were compared. It is suggested that this age shift is in part explained by efforts of public health officials and parents to isolate younger persons in an epidemic.

Among household contacts, who were mostly siblings, an attack rate of between 1 in 4 and 1 in 6 was found, although very few of these developed paralytic poliomyelitis. The attack rate observed in older siblings was greater than that in younger siblings. W. H. Bradley


The recent change in the age distribution of poliomyelitis has been as obvious in Sweden as elsewhere, and is shown by a comparison between the author's figures for the epidemic in Sweden in 1911-1913 (2,660 cases) and those of Olin and Heinerz for 1930-1939 (2,299 cases). In 1911 the maximum incidence was in children under 6, but the epidemic rapidly increased. In 1939 the incidence was much the same at all ages up to 25 with a shallow maximum between 10 and 15 years of age. As a reason for this change in the nature of the virus but postulated, the author suggests that this is merely an expression of ignorance.

Before 1911 epidemics did the most damage in the rural areas where total morbidity was higher and there was a higher incidence of morbidity in the older groups than in the towns. The author found that the morbidity rates were inversely proportional to the population density, and these findings in an epidemic period were confirmed by Olin and Heinerz between 1930 and 1939. Further, the author had noted that areas where there was an epidemic one year were relatively free the next.

The knowledge that non-paralytic and asymptomatic infections occur, the presence of antibodies in adult sera (higher in town dwellers), and the occurrence of sporadic cases between epidemics justify the belief that active immunization is always going on. This natural immunization occurs later and is less thorough—and hence epidemics are more severe—where the population is thinnest and social contacts are least frequent.

The author suggests that the shift in the age incidence of poliomyelitis is really a social phenomenon due to the increased numbers of older children and young adults who are brought up in the country where contacts are few and natural immunization is weak and who then come to live, study, or work in the towns where the chance of contact with the virus is greatly increased. A. M. M. Wilson


The author of this paper assembles evidence to indicate the severity of the casualties from disease in the American Army during the War of Independence. During the seven years of war the average American soldier, often ill-shod and poorly clad, offered little resistance to the prevalent forms of infection. It is not fully realized by the historians who have described that struggle that contagious disease accounted for ten times more deaths than did the guns of the well-equipped English army. The two diseases most dreaded were typhus fever and smallpox, but dysentery also took a heavy toll. In September, 1776, nearly 50 per cent. of the Northern Army was reported unfit for duty on account of sickness.
Hospital accommodation was insufficient, and many who entered hospital with slight disorders became infected and died. Immunisation for smallpox was of little avail; vaccination had not then been discovered.

The present author gives details of the various epidemics, and describes the excellent services rendered by Morgan, Shippen, and other medical officers, at a time when the death rate among the medical officers was greater than that of officers in the fighting forces.

Douglas Guthrie


The author states that from November, 1941, to March, 1942, a number of deaths from starvation occurred in Greece. The ocular changes observed included the following: (1) Irregularity in thickness of corneal epithelium with epithelial ulcers, oedema of epithelium, oedema of substantia propria sometimes resulting in opacity like diskiform keratitis, and oedema of endothelium. Clinically, the uneven condition of the corneal surface was well seen with the slit-lamp microscope and the use of methylene blue, which is retained temporarily in the depressions. Granular keratitis is a manifestation of cellular atrophy. In this the methylene blue impregnates the affected cells and is visible for a long time. (2) Iris oedema and sluggish pupil reaction. (3) Oedema of the ciliary body and early paresis of accommodation. (4) In those dead from inanition, retinal oedema, particularly in the disk-macula area, was often present. Ophthalmoscopy revealed a whitish colour with exaggerated light reflex, characteristic retinal folds, and intense macular oedema. The nerve head is oedematous and swollen.

Hemeralopia is not found in those who die of starvation. It commonly appears after some 2 years of deficiency. Hemeralopia and oedema of starvation are probably due to different aetiological factors, with particular regard to vitamins. Hemeralopia was most common in spring, summer, and early autumn, whereas death from oedema of starvation occurred in winter. Hemeralopia affected patients mostly between 10 and 25, while the acute cases occurred between the ages of 30 and 70.

Much detail is given from the examination of a large number of patients. The fundus colour is described as a waxy, pale, red-brown. The field of vision was considerably contracted, with great variation in the relation of fields for different colours in different patients. Dark adaptation was much reduced, but with considerable variation in degree. Skin colour was yellow-black or earthy, this colour change being most marked in face and hands and particularly if the patient was exposed to the sun.

It is claimed that a functional insufficiency of the liver may have the elaboration of lipids and vitamin A is the cause of the hemeralopia. (1) Hemeralopia does not develop until the subject has been on a deficiency diet for 3 years. (2) Those who die quickly from starvation do not develop hemeralopia, although their stock of lipids is exhausted. (3) Hemeralopia does not affect all those who are under the same dietary conditions. (4) The incidence of hemeralopia is small in comparison with the number of those undernourished.

Still more convincing is Wagner's observation that in children deprived of vitamin A those with pre-existing liver disease are 10 times more liable to hemeralopia than the normal.

H. Neame


In these valuable lectures the author first reviews the effect of the recent war on tuberculosis incidence and mortality, and then describes the changes which have taken place in the health services.

The statistics obtainable in the circumstances of war could be only approximately accurate. Though there was a rise in mortality in most European countries in the 1914-18 war, the story in the recent one was not quite the same. In countries in which there was little or no wartime rise in mortality, Denmark was outstanding, as it had been between 1885 (mortality rate 300 per 100,000) and 1935 (50 per 100,000). In 1945, the rate was 33. In Norway and Sweden also there was a definite fall in mortality rate.

In England and Wales, Belgium, Eire, and France, the rate rose in the first years of the war and fell in the later years. The causes of the former (except perhaps in Eire) were overcrowding, lack of food, dispersal of patients, and disorganization of services. Usually these services were quickly organized and the rate fell. In France, the curve showed a rise in 1941, with a subsequent decline, at first gradual and then quite steep to little more than half the 1938 rate. But where food was ample (Normandy, Brittany, Eastern France), the rate declined throughout. In the South of France where food shortages persisted, the decline did not come till 1943. In England and Wales, since 1941 the death rate has declined, but not to that level which would have been reached if the pre-war trend had continued; in children under 5 years old the level has remained higher than before the war.

In other European countries the mortality rate rose throughout the war years to a peak at its end. In Holland, this rise was especially marked in Amsterdam, amounting to 208 per cent. compared with 111 per cent. for the rest of the country. In Budapest and Vienna, food shortages and disrupted housing led to a maximum death rate in the last year of war (322 per 100,000 in Vienna). In Rome the peak was in 1944. In Germany a moderate rise preceded ascent to a peak in 1945, since when there has been a fall, so that the rate in Western Germany is well below that in many other countries, though Berlin has been slow to recover. In Warsaw by 1941 mortality was nearly 200 per cent. up on 1938 and persisted at this rate, though there has been a rapid fall since 1945.

Scotland is exceptional in that the wartime rise has not been followed by a fall; in fact the position has worsened, largely due to the high rates in the cities, particularly in Glasgow. Here the increase is greatest among females, whereas in all other countries it was most marked among males.
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As regards morbidity, the author emphasizes that figures are still less reliable, not because increased rations rewarded diagnosis. Mass x-ray surveys leave no doubt that there is a high prevalence in Eastern European countries.

Wartime rises could have been due to shortening of expectation of life in certain patients, to the fact that conditions prevented others from overcoming the disease, or to infection of a greater number of persons. However, where the pre-war decline was, after a rise, resumed, it must have been the case that many thousands of deaths would not have occurred but for the war (whether these were in new or old patients is doubtful).

In his second lecture, the author discusses the experience of UNRRA workers. There was in many countries a trend towards central direction of effort and also to regionalization of tuberculosis areas. Perforce also there was a swing away from large specialized sanatoria to hutsments grouped around existing hospitals. Some countries assign 5 to 10 per cent of beds in general hospitals to the care of the tuberculous, and in France new legislation stipulates that in each department the hospital in the principal town shall be a tuberculosis centre.

The dearth of nurses is often countered by correct "job-analysis", much work being allocated to nursing-aids. The author rightly applauds the French scheme for treatment and rehabilitation of students. After discussing the work of W.H.O., he points the moral of his lectures: "no country with a tuberculosis rate anywhere above the lowest rate yet recorded can afford not to make a continuous attack upon the disease and upon the conditions that favour its development." J. V. Hurford


The average incidence of pulmonary tuberculosis in pregnancy, when antepartum examination includes chest radiography, is approximately 2 per cent. Treatment during pregnancy is highly important and, besides conservative measures, includes induction of pneumothorax, severing of adhesions, and performance of thoracoplasty. In the series reported four thoracoplasties had been performed in the fourth to seventh months, all with good results. In no case did abortion or premature labour ensue.

In 77 patients in whom tuberculosis was diagnosed before pregnancy the mortality was 15-6 per cent., compared with 28-2 per cent. in those in whom it was diagnosed during pregnancy. Parity has no effect upon the course of pulmonary tuberculosis. Prolonged and severe labour is to be avoided, since straining, exhaustion, and increased blood loss may cause a spread of the disease. Caesarean section has a place in selected cases; for example, those in whom thoracoplasty has been performed. Selection of the method of analgesia or anaesthesia is important, since diminution of the cough reflex and voluntary expectoration for any length of time may result in stasis of pulmonary secretion. No infant born in this series had evidence of prenatal or postnatal tuberculosis. The maternal mortality in 116 cases was 19-8 per cent., 87 per cent. being in the far advanced group.

L. A. Cruttenden


The authors, working at the Maudsley Hospital and Brixton Prison, studied the electroencephalogram (E.E.G.) of each of 64 prisoners charged with murder, whom they divided into five groups: (1) eleven cases in which the killing had been incidental to the commission of another crime or had been in self defence; (2) sixteen cases in which there was a clear motive for killing, or in which death followed intended violence during the commission of another crime; (3) fifteen cases in which murder had been committed with little or no apparent motive; (4) eight cases in which murder had been accompanied by sexual activities; and (5) fourteen persons found unfit to plead or guilty but insane at their trial, or subsequently found insane at a Statutory Enquiry. The prisoners consisted of 58 men and six women, and their ages ranged from 14 to 60 years. The E.E.G. results were classified by the authors as normal, unspecific abnormal, severe unspecific abnormal and specific, focal, or epileptic abnormal. The mild unspecific abnormal records included those in which activity at a rhythm of 4 to 7 cycles per second was present in excess of the normal and dominated the tracings from the frontal, central, or temporal areas. The severe unspecific abnormal records included those with a dominant postcentral rhythm at less than 8 cycles per second, paroxysmal high-voltage activity at 14 to 30 cycles per second, such activity at less than 8 cycles per second in any region but symmetrical, and activity seen as a discrete rhythm at less than 4 cycles per second.

Mild unspecific findings were recorded in seventeen cases, severe unspecific in seven, and specific in eight. Groups (1) and (2) together provided 22 normal and five abnormal E.E.G.s. Groups (3), (4), and (5) together provided ten normal and 27 abnormal E.E.G.s. In group (5), consisting of five cases of epilepsy, three of schizophrenia, three of depressive psychosis, one of psychopathic personality and one of paranoia, the E.E.G. was normal in only two cases. Stress is laid on the value of the E.E.G. as an objective indication of innate propensities affecting responsibility.

G. de M. Rudolf


In a review of the literature relating to the psychosomatic approach to allergic disorders, the authors give a bibliography of seventy references, a few only of the principal findings being outlined here. Alexander and French (N.R.C. Psychosomatic Medicine Monograph IV, Washington, D.C., 1941) outlined the investigation and treatment of 27 asthmatic patients by psychoanalytical methods. It was concluded that, in general, attacks of asthma tended to be produced by situations which threatened to separate or estrange the patient from his mother or a mother-substitute. In these circumstances the attack seemed to have the significance of a suppressed cry. In the theme situations there was often a strong desire to make a confession to regain the mother's love; if this was successful the attack might be averted.
Attacks were often precipitated by various kinds of sexual temptation. There was much variation in personality type among these patients at a superficial level, but at a deeper level they showed one common feature—an intense need for parental love and protection. Nearly all were shown to be allergically hypersensitive, but attacks during the period of analysis did not appear related to any allergen. Of nineteen patients who were under treatment for 6 months or more, nine became symptom-free, eight were much improved, and two remained unchanged. (Gerard, Nerv. Child, 1946, 5, 327) reported the results of psychoanalytical treatment of five asthmatic children: after treatment all five remained sensitive to allergens on skin-testing, but four were relieved of symptoms. From the psycho-analysis of seven patients with hay-fever, Wilson (Psychosom. Med., 1941, 3, 51) put forward the hypothesis that the psychological component in this condition is an unsuccessful olfactory repression, this being the result of unsatisfied sexual curiosity in childhood, with displacement of interest to the function of elimination and the odours associated with it. Saul and Bernstein (Psychosom. Med., 1941, 3, 349) stated that the central feature in patients with urticaria was an infantile longing for love, and that when this longing is intensified and frustrated allergic sensitivity increases and symptoms appear. Emotional tension has been observed to be a precipitant of attacks of neurodermatitis by many investigators.

Desmond O’Neill


The characteristics of a “problem family” are defined, and the causes of the unsatisfactory conditions are discussed, with special comment on the complexity of the factors involved. Various modes of dealing with these unsatisfactory conditions are mentioned, whilst the poor results obtained are assigned to failure of the problem families to utilize the help available. The immediate effect of general social improvement is not to eradicate problem families, but to bring them into prominence as a minority who do not benefit from these measures. The failure to benefit is due to personal deficiencies, which are untouched by large-scale social changes. So that the individual attention needed by each family may be given, the author suggests that they should be referred to a Family Service Unit by the other social organizations. Having no official status, the Family Service Unit acts by first gaining the friendship and co-operation of the individual members of the problem family and then assisting them to attain independence and self-respect, so that regeneration results from the family’s belief in its own power of recovery. The Family Service Unit also prevents overlapping and sometimes contradictory policies of other social bodies. The method employed is for one social worker to accept responsibility for the welfare of the family by giving practical aid with budgeting, cleaning, repairing, and disinfecting, and by ensuring that the family uses existing social services including health. This is often required a. Because the members of problem families are childish, immature, frightened people, all assistance has to be based upon friendly relationship.

Generalizations about the results of treatment by the Family Service Units are premature, but results so far suggest that some improvement always follows.

Three Family Service Units exist in Liverpool, London, and Manchester. Each worker, acting under the supervision of a fieldwork organizer, is responsible for twelve to twenty-five families at a time. Although, owing to the small numbers dealt with by each worker, the service is expensive, it is considered that apart from humanitarian issues economy really results. Thus, unless this service is given, the families remain a constant burden on the ratepayers and taxpayers, and its members gradually drift into institutions such as approved schools or prisons wherein they are maintained at considerable expense.

A. M. Critchley


A study was made of 203 children seen at this clinic (about 16 per cent. of the total attendances) between 1942, when the clinic opened, and the end of 1946, together with nine children who attended after this date. The cases were followed up in 1947-8. Study of the cases material revealed that evacuation “played a major role both in aggravating neurotic disturbances and in creating deep and persisting disturbances.” In 67·8 per cent. of patients with persistent symptoms evacuation had taken place: 63·7 per cent. of the children presenting problems after evacuation were under 5 years old at the time. This age-group suffered the most damage, followed by the group of children who were nervous before evacuation. In 79 of the series (37·2 per cent.) there were neurotic reactions to changes in family life. But these, together with reactions due to bombing, tended to clear up once the disturbing factor had been removed. Neurotic reaction to bombing only tended to appear in the young child when the mother’s attitude to the experience was unsatisfactory or if his own physical safety had been directly threatened by the incident. In such cases the morbid reaction tended to persist. Evacuation after a previously untreated shock due to bombing also had an aggravating effect. The older child tended to react to bombing with anxiety. The effect on the child of changes in family life resulting from the war are discussed. The commonest symptom in the series was behaviour disturbance, and the next common anxiety. After a bombing incident 83 per cent. showed anxiety, and 64 per cent. changed behaviour. After evacuation and family changes behaviour disturbances predominated. An outstanding feature was delinquency (mostly minor) seen only after evacuation: this was thought to be due to a feeling of rejection.

Although only 9·4 per cent. of the series lost much schooling, 30·6 per cent. showed difficulties, mostly emotional, at school. In 81·9 per cent. of the children tested the intelligence quotient ranged from 90 to over 110: it was under 90 in 12·3 per cent., and 5·4 per cent. were mentally defective. The housing shortage was significant etiological factor in this condition. Of the total, 142 (66·9 per cent.) were previously “nervous” and 114 (53·7 per cent.) had a “nervous” parent (the mother in 75 per cent.). No further details of the family histories are given. The importance of latent conflicts,
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hitherto unsuspected, in the genesis of a morbid response to war experience is discussed. Of sixteen schizophrenic children examined no aetiological relation to war experience was found, in conformity with universal experience. Of the series 60.8 per cent. were boys. No striking difference in the reaction between the two sexes was found. Statistical treatment of the material supported the conclusion that evacuation was associated with persistence of neurotic reaction. The figures suggested also that "nervousness" before being evacuated was an additional factor, but the paucity of the material forbade a definite conclusion. It could be stated with some confidence that the combination of "nervous" parent and bombing was associated with persistence, but the analysis did not reveal that these factors together with antecedent "nervousness" in the child were important prognostically.

E. W. Anderson


The authors investigated the effect of various forms of goitre on the menstrual cycle at the Rigshospital, Copenhagen. Patients were followed up for at least 6 months after operation and none of the 309 patients suffered from gynaecological conditions.

Menstrual abnormalities were found in 95 of the sexually mature women with toxic and non-toxic goitres, but the incidence in the toxic group was higher. Similarly there was a higher rate of menstrual abnormalities in older women. The disorders found were: hypomenorrhoea in 50·6 per cent., oligo-hypomenorrhoea in 31 per cent., and amenorrhoea in 18·4 per cent. No case of menometorrhagia was seen. In several cases the hypomenorrhoea was the first manifestation of hyperthyroidism. Contrary to expectation amenorrhoea was not more common in cases of long-standing hyperthyroidism. It was also found that the incidence of amenorrhoea and hypomenorrhoea rose with a rise in the metabolic rate, while the incidence of oligo-hypomenorrhoea decreased with a rising metabolic rate. In all except six patients normal menstruation recurred after partial thyroidectomy.

Of eight cases with menstrual disorders of long standing, the menstrual cycle became regular in four after the onset of hyperthyroidism, in two the cycle became less irregular, and in two there was no change. In the first group the cycle remained regular after partial thyroidectomy.

W. P. Hirsch


Secondary amenorrhoea in the post-war years in Hamburg was attributable in nineteen cases to inadequacy, mainly in protein, of the rations allowed to them. Twelve patients, mostly young women, suffered from Bansi's dystrophy (Med. Klinik, 1946, 41, 273) with considerable increase in weight, especially around the trunk and thighs, facial swelling, and fleeting oedema of hands and ankles, together with flatulence, constipation, and general weakness. Seven patients, all over 30, showed various degrees of wasting. The duration of amenorrhoea was at least one year, and in some cases 2 or 3 years or even longer. Before treatment curettage was performed and the endometrium examined; it was usually atrophic and non-proliferating, but the uterus was of normal size. The treatment itself consisted of administering various combinations of amino-acids, details of which are given, and one litre of milk daily; it was carried out on an average for 31 days. Menstruation followed in seventeen patients, usually on the first occasion with evacuation of the endometrium, but the investigation is in most cases too recent to show whether a normal cycle has been re-established.

E. C. Lewis


The authors have been successful in recovering 28 embryos from the uterus after hysterectomy in 136 fertile women; in each case the operation was performed in the second half of the monthly cycle, before a menstrual period had been missed, and all the patients are described as being potentially pregnant. Only sixteen of the embryos could be regarded as entirely normal and seven were certainly destined to abort. In four cases the abortion would probably have been so early that pregnancy would not have been diagnosed. The authors give detailed descriptions and photographs of the various abnormalities affecting each part of the embryo. They state that the endometrium was normal in all cases, and that the average age of the patients with abnormal embryos was 32·5 years, while for those with normal embryos it was 33 years. It is concluded that not only does the series of cases give a fair index of the monthly fertility of women in this age group, but it establishes beyond doubt that the recognized rate of 10 per cent. for spontaneous abortion is due to abnormality in the germ plasm (heredity) rather than to environmental factors.

It would be interesting to learn the indication for hysterectomy in these cases, since many lesions of Fallopian tube or uterus might adversely affect the fertilized ovum.

W. G. Mills


In 5,400 semen analyses the volume, density, total ejaculate, basic motility, and morphological abnormalities, both total and of the head only, were recorded. The technique of collection is described and a plea made for uniformity. There are many more factors in fertility than the actual quantity and quality of the semen, but by a consideration of the findings in fifteen normal men and in 125 who were investigated for subfertility and subsequently impregnated their partners the author attempts to lay down minimal normal standards. He concludes that the common fault in cases of subfertility is abnormality of the spermatozoal heads. In these cases, even when pregnancy occurs it is likely to end prematurely. He condemns the practice of giving an opinion on a case without a complete analysis of a properly collected specimen of semen, as a reliable opinion can only then be given.
The results of treatment are not encouraging. Vitamin E and testosterone have been used but no improvement definitely due to the treatment has been obtained. Complete semen analysis is of value, however, if only for the fact that it saves patients with azoospermia and oligozoospermia from the inconvenience of treatment which can do them no good. In such cases testicular biopsy is essential. If complete lack of spermatogenesis is found further efforts are of no value. If normal spermatogenesis is found an obstruction of the vas or epididymis is certain and it may be possible to correct it by surgical treatment. Where spermatogenesis is merely delayed it may be hastened by treatment. A correlation of semen findings and testicular histology is likely to be of the greatest value in the treatment of cases of subfertility.  

Thomas Moore

Mongolism and Heredity. (Mongolisme og arvelighed.)  

The author has gathered all the available information about the relatives of 51 mongols, 51 idiots, 51 imbeciles, and 51 feeble-minded persons. All the data concerning the latter three categories were obtained from institutions for comparison with the author's data on his own series of mongols. The survey showed that mental deficiency was present in 3.7 per cent. of relatives of mongols, 6.5 per cent. of those of idiots, 11.2 per cent. of those of imbeciles, and 7.6 per cent. of those of the feeble-minded. Personality defects (psychoses or neuroses) were equally common in all four groups, but the incidence of epilepsy among the mongol families (0.8 per cent.) was only half of that in the other groups. Deaf-mutism was about 5 times and stillbirth about 4 times as common among the mongol families as in the other groups.

B. Nordin


The author has tried to find evidence that developmental abnormalities may represent something more than unavoidable accidents of nature. A summary of certain views is presented on the relation to congenital malformation of age and parity, infectious disease and nutritional condition of the mother, mechanical factors (such as bands, increased intra-uterine pressure, and placenta praevia), exposure to X rays and radium, and other factors such as haemolytic disease. Various observations show that environmental influences play an important part in the aetiology of congenital malformation. The type of resulting defect depends mostly on the stage at which the foetus is disturbed. For the purpose of this investigation the author examined the careful antenatal records kept in the Obstetric Department of University College Hospital, London, from which it was possible to see whether the mother subsequently gave birth to a normal or a malformed child. The records of 200 women, picked at random, who gave birth to normal children provided the control observations. Out of a total of 3,593 deliveries during the 4-year period 1945-8 there were 73 malformed children (2 per cent.). These were classified according to the chief malformation, the largest groups being those with malformations of the central nervous system (eighteen cases) and those with deformities of the limbs (thirteen cases). Correlations were found between the occurrence of foetal malformations and maternal age (mean age of mother 28.6 compared with 26.5 years in the control group), multiparity, and the previous occurrence of abortions (19.5 per cent. compared with 7.5 per cent.). Maternal nutrition and vitamin intake were equally good in the two groups. Antepartum haemorrhage occurred in 20.5 per cent. of the pregnancies resulting in deformed children compared with 4.3 per cent. of the controls. There was no significant difference in the incidence of toxæmia (blood pressure over 120/80 mm. Hg) and in only one case was there albuminuria. There were twelve malformed children whose mothers had had an acute infectious disease in the first 3 months of pregnancy, whereas only three such cases were found amongst the controls. The incidence of all types of morbid condition during the first 3 months of pregnancy in the mothers of malformed children was 45.2 per cent. compared with 14.5 per cent. in the controls. There was no significant difference in age of parity between these groups. [The investigation supports the view that relatively advanced maternal age and parity play a part, possibly through hormone action, in the production of foetal malformation. These factors do not play a part where the cause is a morbid state of the mother before the third month, and here an antigen-antibody reaction may interfere with the proper differentiation of the foetus in its early stages.]

A. W. Franklin

Perinatal Deaths in Czechoslovakia.  

This is a survey of the necropsy findings in stillborn foetuses above 400 g. in weight and in babies dying within 10 days of birth in the maternity unit in Prague during the 4-year period 1943-6. There were 38,999 births, with 862 stillbirths (22.1 per 1,000) and 1,334 neonatal deaths (34.1 per 1,000). The total deaths in the perinatal period thus numbered 2,916 (56.2 per 1,000), or one in every twentieth pregnancy and 2,147 necropsies were performed. There was a higher death rate among mongol, boy babies, who were more numerous than girls in the ratio of 108.5 to 100. In the analysis of causes of death the cases are divided into prenatal and neonatal groups, and each group classified as non-viable (400 to 1,000 g.), immature (1,000 to 2,500 g.), mature, and post-mature (over 4,500 g.). "Debility" is recognized as a positive cause of death, especially in infants of under 1,300 g. and "causa incerta" is reserved mainly for cases where autolysis prevented adequate study. Asphyxia (including "asphyxia plus intracranial haemorrhage") was the commonest cause (31.7 per cent.), the majority of deaths in this category being prenatal, non-viable, immature, or mature foetuses. Intracranial haemorrhage caused 18 per cent. of deaths and attention is drawn to the frequency of unsuspected haemorrhachis in premature infants: vitamin K administration to parturient mothers is recommended [unfortunately without supporting figures]. Congenital anomalies accounted for only 5.4 per cent. Congenital syphilis (0-93 per cent.) has been diagnosed more frequently since...
the adoption of Kanzler's method for staining spirochaetes in frozen or in single paraffin sections. Infection was the third commonest cause, especially pneumonia (12.5 per cent.), which was diagnosed post mortem more than three times as often as life. The prematurity incidence was 12.5 per cent. and, including the 331 non-viable foetuses, the death rate amongst premature infants was 301.7 per 1,000 compared with 19.7 per 1,000 amongst the 34,997 mature babies. The author emphasizes that it is essential to check the clinical diagnosis of cause of perinatal death by means of careful post-mortem studies, and for the pathologist to interpret his findings in collaboration with the clinicians.

A. W. Franklin


Among 1,003 cases of postmaturity (which is defined as pregnancy with a duration of amenorrhoea exceeding 290 days) observed at the Obstetric Clinic of Basle University, stillbirth and early neonatal death occurred 28 times, that is in 2.79 per cent. Seven of the children died before the onset of labour, fifteen during labour, and six within the first 10 days after birth.

The child's life is particularly endangered if there is postmaturity in a primigravida, especially over 30 years old, if amenorrhoea exceeds 305 days, or if there is oligohydramnios or maternal nephropathy.

The causes of death included infecions incompatible with life (six cases), maternal toxæmia (three cases), cord complications, such as too short a cord or "cord round the neck" (seven cases), and birth injuries (six cases); in four cases the cause of death remained unexplained and two deaths were attributed to injudicious administration of quinine to induce labour.

The author recommends induction of labour by medicinal means (enema, castor oil, quinine, "thymophasin") when an expectant mother is 10 to 14 days past the calculated date of delivery; this method, which in some cases had to be repeated once or twice, was successful in 77.7 per cent. of cases. If it fails, the author advises artificial rupture of the membranes in multigravidae, and Caesarean section in primigravidae, especially if they are over 35. When regular uterine contractions have been present for 12 to 24 hours and the os is one-third to one-half dilated, the membranes should be ruptured, if the escaping amniotic fluid is discoloured by meconium the author performs digital dilatation or incises the cervix radially. [After the use of quinine, discoloration of the amniotic fluid may have no prognostic significance at all.] During the second stage of labour the foetal heart sounds are carefully listened to at intervals with a view to instrumental delivery if necessary.

N. Alders


From about 400 cases of stillbirth and neonatal death examined post mortem in the Glasgow Royal Maternity and Women's Hospital over a period of 9 months, the author has selected 116 cases of stillbirth. He divides the cases into three groups.

In Group 1 (thirty cases) the child presented the appearance of asphyxia pallida. Necropsy revealed a broad band of haemorrhage along the posterior atri-ventricular sulcus and in the adventitia of the aorta. The heart cavities and the coronary vessels contained little blood. The thymus was pale, but there were distinct subcapsular haemorrhages. The visceral surfaces of the lungs showed flame-shaped or petechial haemorrhage, and haemorrhage was present at other sites in some cases. Apart from occasional subcapsular haemorrhage, liver, spleen, and bowel showed little change. The adrenal cortex was brown, with loss of lipoid, and the kidneys were pale, though occasionally medullary congestion was seen. In one-third of the cases torrential tears were present, with severe haemorrhage in only one case. The commonest obstetrical complication in the group was "accidental" haemorrhage (thirteen cases). There was one case of placenta praevia and the others were cases of difficult delivery, either manual or instrumental. Maternal toxæmia was a common feature.

In Group 2 (24 cases) the child was markedly cyanosed. The main necropsy features were of congestion, notably in thymus, lungs, liver, spleen, adrenals, renal cortex, and medulla. The right heart was engorged. Haemorrhage was absent except occasionally on the visceral surface of the lung. Lipid in the adrenals was limited to the subcapsular zone. Despite the congestion of the brain and meninges, and the finding of torrential tears in 40 per cent. of the cases, significant haemorrhage was not noted. The obstetrical complication in this group was prolapse or compression of the cord (thirteen cases). In five cases death was attributed to tracheal blockage by vernix or meconium. In six others there had been prolonged labour. Maternal toxæmia was not a feature.

In Group 3 (62 cases) there was a mixture of haemorrhage and congestion, the child being cyanosed with occasional petechial haemorrhages. Haemorrhages of the atrioventricular sulcus and great vessels were combined with engorgement of the right heart. Other organs showed a similar combination. In twenty cases there were torrential tears, but in twelve there was no associated haemorrhage. Sutural, intraventricular, and extramural haemorrhage were seen. The commonest obstetrical complication was maternal toxæmia (54 per cent.) or maternal shock, associated with eclampsia, accidental haemorrhage, ruptured uterus, or placenta praevia. Prolonged labour, though common, was always associated with maternal toxæmia. Prematurity did not alter the picture in any group.

The author claims that Group 1 shows the characteristic post-mortem changes of shock, Group 2 those of asphyxia with right heart failure, and Group 3 a mixed picture. He claims that this grouping might aid in the evaluation of obstetrical causes of stillbirth. [It is not clear what proportion of the total number of stillbirths is represented by the 116 cases. Associated clinical study of the cases should elucidate the real differences in the causes of death. It is important to know whether, for example, death took place immediately on occurrence of accidental haemorrhage, or at what stage of labour, since sudden and complete anoxia is probably an acute "shocking" stimulus.]

James Walker

The authors report an appraisal of physical and mental development in 400 cases of congenital heart disease, mainly of the cyanotic type and therefore associated with considerable disability in most cases, and have analysed the data for height and weight in 200 cases where the information was complete. Most of the children were slightly below the expected height for their age, and more markedly below expected weight, so that they appeared thin. This retardation of physical development was more obvious in the severely cyanosed than in the less cyanosed, but less marked in patients with Fallot's tetralogy than in other lesions with comparable cyanosis. Some delay in walking and talking was observed, particularly in the patients severely cyanosed from birth, but was not of a serious degree. In spite of the finding that seventeen of the total of 400 children were mentally defective and ten backward, there was no correlation between the degree of cyanosis and the incidence of mental defect, and the authors believe the latter to be due to an associated genetic defect rather than to anoxaemia. The mental capacity of the remainder appeared normal or even superior, although many were educationally handicapped. Chest deformities and scoliosis were common and often severe. M. Baber


Out of a total of 17,948 births at the obstetrical clinic of the Rhine province of Wuppertal-Elberfeld between July, 1936, and June, 1946, 13.4 per cent. (2,405) of the mothers were "elderly primiparae" between 30 and 48 years of age. Their number, especially that of the 40 to 48 age group, increased almost uniformly from 1936 to 1943 and then decreased (as during the first world war). These elderly primiparae showed the well-known predisposition to birth complications: premature labour in 8.2 per cent. (as opposed to 5.8 per cent. in all births), premature rupture of the membranes in 27.8 per cent., abnormal presentation in 8.2 per cent. (among which 4.7 per cent. were breech presentations), prolonged gestation in 19 per cent., kidney disease in 3.24 per cent., and eclampsia in 0.67 per cent. The maternal mortality was 0.62 per cent., over-all figure 0.21 per cent. (The foetal and neonatal mortality was 2.4 per cent.)

During this period an antispasmodic technique of conduct of labour was developed, which was brought to a certain degree of perfection in 1941-42, consisting in giving well-timed, plentiful, and systematic injection of spasmolytics, chiefly pethidine or "spasmalgin", and at the same time using as few uterine stimulants as possible. A comparison of the figures for the period up to 1941, when the newer drugs came into use, with those for the 1942-46 period emphasizes the improvement resulting from the adoption of this technique, frequency of operation being reduced from 27.7 per cent. to 16.4 per cent., Caesarean section from 9 to 5.3 and application of forceps from 17.1 to 10.2, and neonatal mortality from 3.2 to 1.7. Less trauma to the genital tract and fewer complications during the puerperium were recorded.

In half the cases, "eupan" (hexobarbital) narcosis was used. [The newer methods used in Great Britain for analgesia in childbirth are still hardly known in Germany.]

F. A. Jacobs


In a previous investigation (Acta paediatr., Stockh., 1946, 33, Suppl. 2, 3) on the content of calcium, inorganic phosphorus, and phosphate in the serum of premature infants, the authors found that the premature infant had insufficient stores of calcium and phosphorus. If such infants were fed on human milk alone, phosphorus stores diminished further and radiological signs of rickets appeared, but this could be rectified by adding cows' milk to the diet. The calcium supplied in breast milk was insufficient for the infant, but was not absorbed without the addition of vitamin D. Rickets occurring in the first months of life was considered to be caused usually by a lack of vitamin D. The present investigation was made in order to check the chemical and radiological findings of rickets in such cases by histological examination of material from the costo-chondral junctions of 181 infants, mostly premature, and mostly dying in the first 2 weeks after birth at the Children's Hospital, Gothenburg. Only infants in whom the Wassermann reaction was negative were included. The infants in this series were too feeble during life for chemical tests to have been made. A few of them were given vitamin D, cows' milk, or mineral salts in addition to human milk, but this did not appear to affect the histological findings. Full details of the technique of preparing the specimens is given.

Definite rachitic changes were not uncommonly found in infants who had lived no longer than 2 days, indicating that congenital rickets is therefore more common than the literature suggests. After the age of 2 days the great majority of specimens showed marked rickets. The incidence of rickets in premature and mature infants is less than 30 days old was approximately the same. The mothers of the infants had generally taken satisfactory diets during the antenatal period.

B. S. P. Gurney


In a careful follow-up over a 27-year period of 500 diabetic patients under the age of 20, the author gives details of 364 followed up throughout, of whom 61 died (16.7 per cent.). Stress is laid on hereditary and infective aspects in discussing the aetiology. A hereditary or familial history was given in 27.6 per cent. of cases, and infection occurred in 32.8 per cent., mostly during the 2 months immediately preceding the onset of symptoms. Mumps was most often followed by diabetes.

The mechanism whereby infection may produce diabetes is discussed and the author suggests that increased secretion of adrenal or pituitary hormones and increased blood pressure that produces the glucosuria examination should be undertaken weekly for 4 to 6 weeks after any acute infection in children, and thinks that this might lead to the early detection of incipient diabetes in many instances during a time when the process might still be reversible. Arteriosclerosis is not
an aetiological factor in childhood diabetes, though it is a complication observed after 10 years or more in a large proportion of cases (at least 50 per cent.). The chief causes of death in this series were diabetic coma and glomerulo-sclerosis. The former accounted for 50 per cent. and the latter for 20 per cent. of the 61 deaths. 

W. F. Gaisford


This is mainly a statistical study of the incidence of diabetes in members of the U.S. Army during the period 1941-4. The annual admission rates for diabetes varied from 0.18 to 0.34 per 1,000 mean strength, the maximum strength in 1944 being approximately 8,000,000 men. The incidence of diabetes in over 9,000,000 men examined at induction stations during 1942 and 1943 was 2.6 per 1,000. Of those developing diabetes after enlistment some 75 per cent. were discharged on medical grounds; the annual mortality from diabetes ranged from 0.53 to 0.98 per cent. of admissions. The opinion is expressed that even men with non-diabetic glycosuria are a nuisance in the Army because, in the frequent absence of records, the finding of glycosuria in a new unit or hospital leads at once to troublesome reinvestigation to determine its meaning.

R. D. Lawrence


It has been observed during the last 15 years that when the weekly total of deaths from influenza in the great towns of England and Wales has exceeded 100, positive evidence of virus infection has usually been found in the laboratory, whereas when the number of deaths has been less than 100 the search for virus has usually failed. The clinical and post-mortem findings in cases of death certified as being due to influenza in epidemic and in non-epidemic periods were therefore analysed and compared, the practitioner being invited to provide the information required when such cases were certified.

The investigation was confined to urban areas of the Sheffield and East Midlands Region and began in September, 1947. From then until December, 1948, record sheets were received from practitioners in only eleven out of 29 cases notified. From January to April, 1949, which was an epidemic period, record sheets were received in 85 out of 192 cases notified. There seemed to be no great difference between the age and sex distribution and the immediate primary and secondary causes of death in the non-epidemic and epidemic periods.

During the epidemic period 22 patients dying in hospital in Sheffield were investigated before and after death for evidence of influenza virus infection, which was found in nine. Staphylococcal pneumonia was an important cause of death among the hospital cases, and in six out of ten such cases a strain of influenza virus A was isolated.

A. H. Gale


In a study of death rates from influenza in England and Wales from 1837 to 1948, the mortality curve may be divided broadly into three periods, each of which began with a severe epidemic. The first followed the epidemic of 1847-8, and after this, except for a temporary recrudescence in 1855, influenza almost disappeared as a certified cause of death. The second wave began with the epidemic of 1890-1, and up to the beginning of the third period the endemic level remained high, with a death rate in 1901-17 varying between 120 and 293 per million living. In the early years of the third period, from the pandemic of 1918 to the present time, several epidemics occurred (for example, in 1927 and 1929) which were more severe than those of earlier periods. Since 1929 mortality has declined, and in five recent years 1942, 1944, 1945, 1947, and 1948, the death rate has been lower than in any year since 1890. There is a suggestion that this decline has been associated with changes in the seasonal incidence of deaths from influenza.

A. H. Gale


Between January 15 and February 22, 1949, outbreaks of virus-A influenza occurred at two military training establishments in the Highlands of Scotland. In unit A the attack rate was 6.6 per cent. and in unit B it was 14 per cent. There was definite evidence of infection with virus A in six cases, in five of which there was an antibody rise against the PR8 strain and in the sixth only against the then current Continental strain (A/Paris PL1/49). Recruits and seasoned men were equally affected and it is suggested that this indicates that the communities had had no recent experience of the infecting agent. Exposure to cold seemed to play a greater part than cross-infection in determining the incidence of the disease.

A. H. Gale


Of 67 cases of primary atypical pneumonia there was a history in 29 (representing 25 families) of similar illnesses in family contacts. A large proportion of the people in these families had respiratory illnesses and one-half of these illnesses were believed to be atypical pneumonia. The average incubation period was 12.4 days.

Scott Thomson


In this paper 214 cases of Weil’s disease which occurred between 1934 and 1948 are reviewed. In Aberdeen fish handling is done by about 2,554 people, excluding those employed in transporting fish. The majority of those employed as filleters and freshers are between 15 and 25 years old, and there is a considerable change of population from year to year. In this review no account is taken of those with latent or subclinical infections. The majority of the cases were from the city of Aberdeen itself, and 184 (86 per cent.) of the 214 were fish workers; thirteen others came from farms, and five were sewer workers. The age and sex distribution of the patients was governed by the composition of the working population in the fish industry. There was an over-all case
mortality rate of 8.9 per cent., but the deaths occurred only in males, amongst whom the case mortality rate was 16.8 per cent. In those under 50 years of age the male mortality rate was 10.3 per cent., but in those over 50 it was 56.2 per cent. Most of the females were less than 21 years old. There appeared to be a maximum case incidence in the early autumn, but the reason is obscure. The total number of cases has been low since 1941, and this may be due to the chlorination of local water supplies. A vigorous campaign of rat destruction is advocated.

The clinical course in these cases followed the usual three stages. Jaundice was seen in 64 per cent.; oedema and azotaemia were associated with a bad prognosis and indicated the presence of toxic nephritis. In the nineteen fatal cases death took place between the 5th and the 20th day, almost always from uraemia. The author considers the blood urea level a useful guide to prognosis. Leptospiral meningitis, as judged by changes in cerebrospinal fluid, occurred in seventeen cases and there was a relatively higher incidence in those who were not jaundiced. The organism was never detected in the cerebrospinal fluid. The diagnosis in this series was usually confirmed by intraperitoneal injection of fragmented blood clot into guinea-pigs. During the first 4 days recovery of the organism by this means is certain, whereas a positive serological reaction is to be expected only from the 9th day onwards.

In the more recent cases penicillin was used in treatment, but nevertheless four of the sixteen patients so treated died. It is thought that penicillin must be given within the first 4 days (septicemic stage) since it has little effect on the toxic nephritis.

J. N. Agate


This paper gives an excellent description of a landmark in the history of man's conquest of malaria. Cyprus, at one time considered one of the most malarious parts of the world, has in the course of 4 years, been rid of anopheline vectors, and the victory has been achieved at the cost of some £300,000, which works out at about 13s. per head of population. The article ends with a warm tribute to the executive officer, Mehmed Aziz, a Cypriot Turk who began his training in 1913 when Ronald Ross visited the island, and "whose genius, power of organization, and man management prove him not only a great malarialogist, but also a born leader among men."

R. M. Gordon


Anopheles gambiæ is the most important vector of malaria in Africa, and its control represents a problem of primary importance in tropical medicine. Following the introduction of the new insecticides it was at first believed that residual spraying with DDT provided a satisfactory solution, but later work by a number of independent investigators proved that this view was far too optimistic, and that the reduction in density of the species observed in treated houses was largely the result of the repellent action of the DDT. In addition it was shown that this repellent action was not sufficient to prevent the. A. gambiae from entering the houses and feeding on the occupiers. Trials with benzene hexachloride (BHC) preparations have not been as extensive as those with DDT, but they have yielded evidence to support the view that "gammexane" is less repellent to this species than DDT and that, although less persistent, it destroys a higher proportion of the A. gambiae that enter treated dwellings.

The experiments described in this paper were carried out at Dar-es-Salaam in experimental native houses provided with window traps which captured most of the mosquitoes entering the houses and subsequently trying to escape. The author summarizes the results as follows: "In huts treated with DDT water dispersible powder at the rate of 400 mg. DDT per sq. foot [4,300 mg. per sq. m.] (twice the normal dose), large numbers of gambiae can feed in the treated hut and escape alive. Of those that leave the treated hut at least 98 per cent. are alive after 24 hours, and at least 80 per cent. after 48 hours. The number of A. gambiae found dead inside the treated hut is only about 1 per cent. of those that escape alive after feeding. Attempts to increase the kill by screening window openings have only met with limited success."

A. Similar hut trials with BHC in the form of "gammexane" dispersive powder, P. 530 at the rate of 24 mg. gamma isomer per sq. foot [258 mg. per sq. m.] have proved completely lethal to all gambiae entering for at least 13 weeks after treatment. During that time there is no indication of any gambiae escaping unharmed from the hut. The number of dead blood-fed and unfed gambiae found regularly on the floor sheets is proof of continued lethal action for at least 3 months after treatment. The superiority of gammexane over DDT in control of A. gambiae is so clearly marked that it is the obvious insecticide on which to concentrate."

R. M. Gordon


Experiences with the treatment of 55 cases of alcoholism by means of "antabuse" (tetraethyl thiuram-disulphide) at the Allan Institute of Psychiatry, Montreal, are described. The method of administration was the orthodox one; of the 55 patients, 45 have not reverted to their old drinking habits [the follow-up period being apparently a matter of weeks].

The following points seem worthy of note. The usual relation of individual patient to physician must be slightly altered, co-operation with a relative, friend, or social worker being desirable. The patient should at all times carry a card on him stating briefly that he is taking the drug, that reactions will occur with alcohol intake, and that in such an event contact should be made with the physician undertaking treatment. The only dangerous reaction occurred in a diabetic, taking 0.5 g. antabus daily but no alcohol, who suddenly went into convulsions followed by loss of consciousness and hemiparesis. The drug appears to be contraindicated in diabetes. Other symptoms complained of during therapy may be the result of sobriety and not of the drug.
Skin rashes appeared in three cases but yielded rapidly to "pyribenzamine" therapy without stopping the antabus.

S. S. B. Gilder

ABSTRACTS


The toxicity and side-effects of a number of antihistaminic drugs administered in therapeutically effective doses were compared. The conditions for which treatment was given included all the commonly recognized allergic conditions. The results were as follows: (1) "Benadryl". Of 217 patients treated 133 (61.3 per cent.) complained of side-effects: in fourteen cases these were sufficiently severe to necessitate stopping treatment. Drowsiness occurred in 93 cases (42.9 per cent. of the total), dryness of the mouth in 44, tingling, weakness, or burning sensation of the hands in 32, headache in 21, dizziness in fifteen, nervousness in eight, vomiting in four, weakness in two, and diarrhoea in one. Many patients complained of more than one symptom. In addition, a number of unusual reactions were reported—mental inco-ordination in three cases and narcolepsy in two; one patient slept for 24 hours after one dose of 50 mg., one was almost struck by a motor car twice within an hour and took refuge in hospital, and another was so drowsy while driving his car that he had to park on the road-side and sleep for 2 hours. (2) "Pyribenazine". Of 126 patients treated side-effects were reported by 45 (35.7 per cent.). Drowsiness occurred in seventeen cases (13.5 per cent.), dizziness in eight, headache in six, nausea and nervousness in four each, weakness and dryness of the mouth in three each, and fatigue and tinnitus in two each. One patient, after taking 50 mg., became comatose for 6 hours, a second was so drowsy and inco-ordinated that he narrowly avoided an accident while driving his car, and a third developed a tachycardia of 140 per minute which lasted for 12 hours. (3) "Neo-antergan". Of 141 patients treated side-effects occurred in 35 (24.8 per cent.). Drowsiness occurred in thirteen cases (9.2 per cent.), nausea and diarrhoea in eleven each, abdominal cramps in eight, headache and tachycardia in four each, dizziness in three, weakness, sweating, and pruritus in two each, and fatigue, dry mouth, vomiting, and nervousness in one each. (4) "Antisin". Of 97 patients treated side-effects were reported by 22 (22.7 per cent.). Drowsiness and nausea occurred in 6 cases each (6.2 per cent.), headache in three, dizziness, tachycardia, and gastritis in two each, and diarrhoea, fatigue, nervousness, sores in the mouth, insomnia, abdominal cramps, pruritus, pharyngitis, and vomiting were encountered once each. One patient complained of a sense of constriction in the chest resembling that experienced in coronary disease, but investigations showed no evidence of cardiac abnormality and the same symptoms occurred when 100 mg. of antisin was given 2 weeks later. (5) "Histaryl". Of 89 patients treated side-effects were reported by eighteen (20 per cent.). Drowsiness occurred in nine cases (10.1 per cent.), nausea in three, dizziness, dryness of the mouth, abdominal cramps, and nervousness occurred twice each, and weakness, tachycardia, and fatigue once each. (6) "Neoheframine". Of 111 patients treated side-effects were reported by eight only (7.2 per cent.). Two patients (1.2 per cent.) complained of drowsiness, and dry mouth, bitter taste, nausea, fatigue, headache, restlessness, nervousness, and aggravation of an asthmatic attack were each reported once.

The drugs were given in routine doses of 50 mg. up to four times daily, except in the case of antisin which was prescribed in doses of 100 mg., while the dose of histadyl and neoheframine was also sometimes increased to 100 mg. The author draws attention to the fact that these drugs, though useful as symptomatic remedies, are no alternative to the careful determination and elimination of aetiological factors in allergy. Serious side-effects may occur and are more common with higher dosage. Benadryl caused the most and Neoheframine the fewest side-effects. However, these usually disappear if the drug is continued and it is only occasionally necessary to stop its administration.

R. S. Bruce Pearson


The author reports an outbreak of typhoid and paratyphoid B infection among 136 persons whose ages lay between under 1 year and 63 years. The paratyphoid B epidemic was due to a carrier working in a dairy. Bacilli were found in his faeces and the Widal reaction showed an agglutination titre of 1 in 400. Another carrier, a butcher 72 years of age, was responsible for an outbreak of paratyphoid through his handling of meat, and two children, a temporary and a chronic carrier, started a typhoid infection among a group of five schoolchildren. The author discusses the measures he introduced to discover temporary and chronic carriers by examining blood, faeces, and urine, and, when necessary, by culture of a sample of bile obtained by passing a duodenal tube.

Franz Helmam


Three instances of carcinoma of the duodenum with concomitant polyposis of the small intestine and single polyps of the colon are reported. The patients were siblings, two brothers and a sister, 16, 18, and 19 years of age respectively. The literature on duodenal carcinoma in young patients is reviewed. Possible implications of this observation for the understanding of malignant transformation in intestinal polyposis are discussed.

[Author's summary.]