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 three abstracting Journals, Abstracts of World Medicine, Abstracts of World Surgery, Obstetrics, and Gynaecology, and Ophthalmic Literature.


Student nurses and medical students at the University of Michigan were skin-tested with purified protein derivative (P.P.D.) and x-rayed at 6-monthly intervals. Two doses of P.P.D., of 0.001 and 0.005 mg., were given intracutaneously. In students in whom the tuberculin reaction was "converted" to positive, chest radiographs were obtained at 3-monthly intervals for 2 years thereafter. Active pulmonary tuberculosis was considered to be present in any tuberculin-positive student who had x-ray evidence of a lesion in the lung which was interpreted by the clinician and radiologists as compatible with tuberculous infection.

Results were reported covering a 10-year period for student nurses and a 3-year period for medical students. No evidence of a decreasing incidence of tuberculosis sensitivity in succeeding classes was found, nor could any one school year be shown to be associated with increased hazards of infection. Twenty cases of active pulmonary tuberculosis were detected and all but two were minimal when first discovered. In no instance had the lesion progressed under observation to more serious disease, and the infection had relapsed in only one patient to date. All cases of active tuberculosis appeared in students who had been negative to 0.005 mg. of P.P.D. on entrance to the school.

M. Daniels


Some 100 unselected cases of poliomyelitis occurring in the Forces were observed, and in five of these a definite association with trauma was noted. The paralysis appeared in from 2 to 10 days following the trauma, and in each case there was a relationship between the muscles affected and the site of injury.

T. Anderson


The author describes two cases, both in infants, out of eight notified cases of poliomyelitis. The two infants, 9 and 11 months of age, had been immunized within the preceding 2 weeks with a combined diphtheria toxoid and pertussis vaccine. The paralysis affected the limb into which the injection had been given. He suggests two possibilities: either that the babies were already suffering from a subclinical infection or that they had been contaminated by means of a syringe after use on another affected subject.

Franz Heimann


Advantage was taken of the 1949 epidemic of poliomyelitis in New York to investigate the relationship between this disease and tonsillectomy: 2,446 cases with 179 deaths occurred in a population of approximately 8,000,000. By applying the age-specific morbidity experience of the general population it was possible to compare the morbidity experience of the tonsillectomized with that of the non-tonsillectomized group. In spite of the small number of tonsillectomized patients who subsequently contracted the disease, the conclusion appears justifiable that tonsillectomy predisposes to the development of clinical symptoms of poliomyelitis. For cases occurring within one month of operation this risk appeared several times greater for the tonsillectomized than for others of comparable age.

W. G. Harding


In this paper the clinical types of poliomyelitis encountered in post-tonsillectomy cases are investigated. The expected incidence of bulbar paralysis is estimated from the experience of over 6,500 cases of poliomyelitis which occurred in New York City between 1944 and 1949, and a comparison is also made between tonsillectomized cases and others individually "paired" with them in respect of age, sex, date of onset, and residential area. Both methods show a significant preponderance of bulbar paralysis in the post-tonsillectomy group, with a maximum incidence within the first 3 weeks after operation. This persisted for 6 months after operation, but was not statistically significant after the first month. The case fatality was also higher in the post-tonsillectomy group.

W. G. Harding

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The author compares the infant mortality rates from gastro-intestinal diseases in two areas of Latin: in Zone A, where insecticides have been used against the mosquito; and in Zone B, which has not been sprayed until recently. The following table shows the figures obtained:

<table>
<thead>
<tr>
<th>Year</th>
<th>Zone</th>
<th>Insecticide</th>
<th>Infant Mortality (per 1,000 live births)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945</td>
<td>A</td>
<td>None</td>
<td>31-33</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>None</td>
<td>17-79</td>
</tr>
<tr>
<td>1946</td>
<td>A</td>
<td>DDT</td>
<td>7-74</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>None</td>
<td>11-71</td>
</tr>
<tr>
<td>1947</td>
<td>A</td>
<td>DDT</td>
<td>18-00</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>None</td>
<td>12-18</td>
</tr>
<tr>
<td>1948</td>
<td>A</td>
<td>DDT + Octachlor</td>
<td>11-59</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>None</td>
<td>13-27</td>
</tr>
<tr>
<td>1949</td>
<td>A</td>
<td>DDT + Octachlor</td>
<td>3-36</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>None</td>
<td>11-40</td>
</tr>
<tr>
<td>1950</td>
<td>A</td>
<td>DDT + Octachlor</td>
<td>8-10</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>DDT + Octachlor</td>
<td>5-16</td>
</tr>
</tbody>
</table>

The striking fall in mortality in Zone A in 1946 and 1949 and in Zone B in 1950 is believed to be due largely to the disappearance of flies; the rise in Zone A in 1947 in spite of DDT is attributed to the occurrence of DDT resistance. An increase in morbidity rates from gastro-intestinal disease in certain selected areas also coincided with increases in the number of flies in those areas.

A. Paton


Homologous serum jaundice is rare in children, and case fatality rate varies with different batches of heterogenic material. During an investigation in 1949 into the value of gamma-globulin fraction of human plasma in the prevention and attenuation of measles in susceptible contacts, a group of ten children were given varying doses of a batch (LP 309) of dried plasma, reconstituted in a small volume of fluid, instead of the gamma globulin itself. Subsequently seven developed homologous serum disease, of whom three died. Encephalopathic symptoms were present in some cases, and in one without clinical jaundice.

The plasma pool LP 309 came from sixty donors, of whom six had a history of jaundice 5 to 40 years previously; the remaining 54 had no such past or subsequent history. Such information as was derived about their other donations of blood did not show any of the six to be carriers of the virus. Part of this plasma pool had been processed for gamma globulin and nominated LG 309. It was possible to trace 43 known and 29 possible recipients of LG 309. One of the known recipients developed mild jaundice, but none of the others was affected.

J. F. Louitt


This paper describes the trial of pertussis immunization carried out by a committee of the Medical Research Council. Children between 6 and 18 months whose parents agreed to inoculation were allocated by random selection to a "vaccinated" and an "unvaccinated" group. The former received injection of pertussis vaccine; the latter received injections of an "anticatarrhal" vaccine specially prepared and bottled so as to resemble the pertussis vaccine. Five different pertussis vaccines were used; three were plain suspensions and two were alum-precipitated. Ten trials were conducted in five separate districts in England.

The vaccinated group contained 4,515 children and the unvaccinated, 4,412; of these, 3,801 and 3,757 respectively completed the prescribed course. Contact with some of the children was lost (mainly through removal) so that at the end of the investigation the totals (in the same order) were 3,358 and 3,352. The trials were begun in 1946 and completed in 1950. The period of observation in each group, was on the average, 27 months. A composite chart is given which shows that the period of observation in each area of study covered periods of increased incidence of pertussis.

Details are given of a large number of attributes of the two groups, and these all serve to show that there was a close similarity between them. So far as reactions to the vaccination were concerned, there was little to comment upon in regard to the plain vaccines; six children given alum-precipitated material developed sterile abscesses. In particular, it is perhaps valuable to state that there were no convulsions or evidence of encephalopathy and that no child developed poliomyelitis within 2 months of inoculation. [The latter case, the result of a child developing the disease was probably remote.]

The attack rates per 1,000 child-months were 1·45 in the vaccinated and 6·72 in the unvaccinated, a ratio of 1 to 4·6. In both groups the attack rate in females was higher than that in males. Two forms of exposure were analysed—"home" and "other". In the former group the attack rates were 18·2 per cent. (vaccinated) and 87·3 per cent. (unvaccinated). In the latter group the respective figures were 8·3 per cent. and 38·0 per cent. It is of interest that the ratios of the incidences in home, other, and "unknown" exposures were very similar—namely, 1 to 4·8, 1 to 4·6, and 1 to 5·0.

When the severity of the attack in each group was analysed, it was found that 73 per cent. in the vaccinated group were mild; the corresponding figure in the unvaccinated was 24 per cent. So far as duration of immunity could be estimated, it seemed that there was no falling off in the protection afforded. Post-nasal swabs were taken in 96 per cent. of the clinically diagnosed cases. From 60 per cent. of them Haemophilus pertussis was isolated. Haemophilus parapertussis was isolated from 24 children, and Haemophilus bronchisepticus from one child.
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The authors discuss the high death rates from cardiovascular disease among cotton workers. Analysis of the Registrar-General’s occupational mortality data shows an association, in the three occupational groups in the industry, between mortality and exposure to dust. Strippers and grinders, the group with the highest exposure to dust, have a significantly high mortality from cerebral vascular lesions, which supports the theory that hyperpiesis may be caused by it. Analysis of data obtained from death certificates is rendered difficult by the fact that up to 1939 the Registrar-General gave priority to cardiovascular disease over respiratory disease when death was certified to be due to multiple causes, so that in heart disease coexisting with the occupational disease byssinosis the former cause was automatically selected. Moreover, practitioners may make use of the convenient diagnosis of myocarditis more frequently than is strictly warranted. Even after allowing for these potential sources of error, however, there seems to remain a significant excess of deaths due to cardiovascular disease in strippers and grinders.

W. G. Harding


Among 4,200 patients visiting a neuropsychiatric guidance clinic there were 150 left-handed children, and 100 of these were examined more closely. The time of dentition, of walking, and of speech development was normal. The development of the intellect (Binet–Simon) did not deviate from the average for the entire group. Only 70 per cent. of these children had a history of normal birth; enuresis, nail-biting, and speech and character disturbances were more frequent among them than among the entire group. In 23 per cent. of the cases there was left-handedness in the family; 30 per cent. of the parents were alcohol addicts and 46 per cent. of them were mentally disturbed. O. Budde-Goppingen [Excerpta Medica]


It is most important that hardiness of hearing should be detected as early as possible, for the child’s overall social development depends on beginning the education as soon as possible, preferably at about 3 years of age; also it is most important that the parents should be prepared as soon as possible for the need of special education. In a series of 71 patients, four showed Rh incompatibility; in another one this was doubtful. The diagnosis was made on: (a) a history of neonatal jaundice; (b) blood sampling showing the mother Rh-negative and father Rh-positive and child Rh-negative. Cases where the father was Rh-negative and mother and child Rh-positive were not included. In six cases maternal rubella in the first 3 months of pregnancy was the only positive factor in the history. One mother had rubella in the seventh month, but this is of doubtful importance. There were two cases of birth injury, six of prematurity


This paper comes from the Department of Medicine and Medical Statistics of the University of Birmingham. The authors determine the total lung volume and all its subdivisions in 58 healthy male subjects, and correlated the results with their present and past consumption of tobacco. There was a uniform tendency for the correlation coefficients of the vital capacity, complemental air, and reserve air to diminish, and for the functional residual air and residual air to increase, as smoking increased. The residual-air increases were statistically significant. There were also increases in the ratio of residual air to total lung volume. These changes were reversible, and ventilatory efficiency improved when the habit was given up. Effects were much more in evidence when recent tobacco consumption had been high. Smoking also produced a diminution in chest expansion.

I. Ansell

[This is a first-class piece of work which must be read by all interested in the subject, as an abstract can do no more than select some of the more important comparisons. It provides an example of how such a study should be planned and carried out.] T. Anderson


Continuous rectal temperature determinations were made on eleven male and eleven female subjects, all healthy adults, by means of copper-constantan thermocouples and an automatic recording potentiometer. Four 24-hour studies showed that almost all maximum and minimum temperatures occur between 6 p.m. and 6 a.m., and therefore principal emphasis was placed on the night hours. There were a total of 42 such 12-hour observations. Maxima for males averaged 38·32°C. (100·98°F.), at 8·49 p.m. and for females 38·36°C. (101·05°F.), at 10·49 p.m.; minima, males 36·83°C. (98·29°F.), at 6·04 a.m. and females 37·16°C. (98·89°F.), at 4·48 a.m. With the exception of the levels of the maxima, these values were significantly different between the two sexes. One male showed only 0·70°C. (1·26°F.) total range throughout the night, while one female showed as much as 2·08°C. (3·74°F.). Fifteen minute-averages were plotted against time and each graph fitted with the best possible trend line by a modified method of least squares. The mean rate of fall from evening to morning was —0·12°C. per hour (0·22°F.) for males and —0·06°C. per hour (0·11°F.) for females, a significant difference.

Deviations from each trend line, namely shape of the temperature curve, were examined for possible relationship to time, evening meal, cold refreshments, activity, falling asleep, awakening, or changes in ambient temperature. Although the inflexions were distributed apparently at random, it was found that of the twelve graphs demonstrating upward inflexions, seven began within 15 minutes of the onset of moderate activity. In general sleep had a stabilizing effect on the shape of the temperature curve.—[Author’s summary.]
birth, five cases among twins, six cases of infantile infectious disease, and 45 of "other or unknown causes". There was no case of consanguinity and no case of proved syphilis.

The great difficulty in testing children for deafness is that under 5 years of age children give unreliable responses to pure-tone tests, which do not hold interest or attention, and the various conditioning tests are not usually performed reliably under two years of age. The use of the electroencephalograph in the sleeping child is therefore suggested, either during the afternoon sleep or under the influence of a mild barbiturate. When the child is asleep the mother calls its name, with increasing loudness. In nineteen out of 53 children with severe hearing loss there was electroencephalographic evidence of intra-cranial disorder, and also in nine of eighteen children with speech defects and slight to moderate hearing loss.

F. W. Watkyn-Thomas


Two cases of methaemoglobinæmia in a brother and sister are described. In both the cyanosis responded to the oral administration of methylene blue followed by ascorbic acid. A number of the relatives of these patients were examined and were all found to be free from methaemoglobinæmia, and the view is expressed that familial methaemoglobinæmia is inherited as a recessive character. The assays of diaphorase I (co-enzyme factor I) showed a deficiency in activity in both the patients as compared with normal controls. In the first case the capacity of the intact cells to reduce methaemoglobin in the presence of glucose and lactate in the absence of methylene blue is impaired as compared with a control.

Geoffrey McComas


In 1925 Charles Mayo stated that the survival rate of all persons with congenital exstrophy of the bladder was 50 per cent. at their tenth year and 33-4 per cent. at their twentieth year. [Coffey's original paper on uretero-intestinal and choledocho-intestinal anastomosis was published in 1911.] This survey shows how the position has improved. Of 144 cases treated by uretero-intestinal anastomosis at the Mayo Clinic between 1912 and 1946, the survival rate was 74 per cent. at the tenth year and 52 per cent. at the twentieth year. At 25 years the survival rate was 50 per cent. (of a total of 28 cases), and at 30 years four out of eight were alive.

The operative mortality rate for a two-stage cystectomy was 10·5 per cent. Eleven cases had had a one-stage operation, with a mortality of 36 per cent. The cause of death in hospital was either pyelonephritis and obstruction at the anastomosis (55 per cent.) or a leaking anastomosis (22 per cent.); the commonest cause of death after leaving hospital was pyelonephritis with stones or hydronephrosis, or both, in 65·7 per cent.

In 41 cases excretory urograms were recorded at various periods after operation; in only five were they considered normal. In four cases renal calculi were present. Dilatation of the kidneys and ureters was equally common on the two sides, but non-visualization was found to be more common on the left side.

K. Whittle Martin


In America and in Italy evidence is accumulating to show that subjects with the sickle-cell trait are heterozygous, and those with sickle-cell anaemia homozygous, for the gene which determines sickling. In a population in which a gene has a frequency $p$, the fraction of heterozygotes is $2p(1-p)$ and of homozygotes $p^2$, so that if the anaemia is not lethal, $p^2 + 2p(1-p)$ should give the fraction of the population which carried one or more of the genes under consideration; thus, if 43 per cent. of a population are found to have one or more factors for sickling, about 6 per cent., or one-sixteenth, should be homozygous and 37 per cent. heterozygous.

Certain East African tribes have an incidence of sickling of this order of magnitude. The Lango, a Nilotic tribe, have an incidence of about 37 per cent. sickling in subjects of all ages from below 3 months to old age. The pygmy Baamba have a 45 per cent. incidence of sickling. Such high percentages show that homozygotes must number between 5 per cent. and 10 per cent., unless the homozygous state causes death in utero or shortly after birth. The author comments: "Both are events which could not have escaped the attention of medical officers in African maternity wards", especially since in Hamitic tribes the incidence of sickling is low—below 1 per cent. In one kraal in which there was close intermarriage, there were 46 individuals with sickle cells out of a population studied of 53.

The author concludes that the simple hypothesis that heterozygotes manifest the sickle-cell trait and that homozygotes manifest the anaemia is not in accordance with the facts. He favours Raper's suggestion that the development of the anaemia may depend on some factor imported by mating with persons other than Africans—a hypothesis which would explain the appearance of the disease in Indians, Arabs, Italians, and American negroes, and in its absence from pure Africans.

[An alternative suggestion would be that the Bantu have accumulated a number of "modifier" genes which suppress the effect of the sickling gene when in the homozygous state, and that mating with other races breaks up the assembly which protects homozygotes from ill effects. Such "epistasis" is well recognized. In dogs, for example, the cross Newfoundland × Great Dane gives rise to grossly abnormal offspring because in the Newfoundland a group of modifier genes protects against the ill effects of genes which produce pituitary hyperfunction (see Huxley, Evolution). Nevertheless Foy and Kondi (E. Afr. med. J., 1951, 28, 1) report four cases of sickle-cell anaemia among thirteen mothers and infants of the Jalu tribe whose cells showed sickling.]

G. Discembe

The Heredity of Epilepsy as told by Relatives and Twins. Lennox, W. G. (1951). Amer. med. Ass., 146, 529. 5 figs. 16 refs.

The incidence of epilepsy among the parents, sibs,
and children of 4,231 epileptic patients was studied. Among the relatives, anyone subject to seizures not considered to be due to syncope, hysteria, carotid sinus syndrome, or the result of "defective metabolism" was classified as epileptic, irrespective of whether any precipitating causes, such as alcoholism or fever, were also present. The question whether one or two seizures were necessary for the diagnosis was avoided by accepting one seizure as sufficient in one-half the relatives and two seizures in the remaining half. The initial series of patients was divided into two groups according to whether or not there was evidence of cerebral damage antedating the first seizure; 22 9 per cent. gave a history of antecedent gross brain lesions, and of their close relatives 1-8 per cent. were found also to be epileptic. Among the close relatives of the remaining 77-1 per cent. of patients who were classified as having "essential" epilepsy there were 3-6 per cent. similarly affected. No very satisfactory information was available to show the incidence of epilepsy (using the name criteria of diagnosis) in the general population. However, it has been shown that in the navy, where men approached the age of 25 per cent. of all recruits were excluded because of epilepsy. This undoubtedly represented a minimum figure for the incidence of the condition in the general population, because the screening was itself fairly coarse, and also because it did not include persons confined to institutions. Thus at the most the incidence was 7-2 per cent. among the relatives of the epileptics than in the general population.

A series of 122 twin pairs (69 monovular and 53 binovular), one at least of each pair being epileptic, was also studied. Of the monovular twins 61 per cent. were both affected, whereas among the binovular twins only 9 per cent. were both affected. Furthermore, it was found that in those pairs of identical twins where both were epileptic there was a closer resemblance between the members of each pair, in respect to the clinical character of the epilepsy and the electroencephalographic findings, than would have been expected on a chance basis.

While it is concluded that hereditary factors are important in determining predisposition to epilepsy, it is emphasized that genetic prognosis can be advanced only very cautiously and must always involve a detailed consideration of the situation in the particular family concerned.

Harry Harris


The embryological development of the imperforate anus is discussed and four types are recognized: anal stenosis, anal atresia, anal and rectal atresia, and rectal atresia. The third type, where there is no anal canal and the termination of the rectum is a considerable distance from the skin, is fortunately far the commonest. This type is generally associated with a persistent fistula between the rectum and the genito-urinary tract. Thirty-five cases are described, of which 24 were of this type; 22 of these there was an associated fistula. Of these fistulae thirteen were recto-vaginal and eight, occurring in males, were recto-vesical. The picture which appears in most text-books showing a blind pouch with a fistula leading off one side is quite incorrect. The fistula is, in actual fact, the funnel-shaped end of the rectum, and the pouch is due to ballooning of the side of the rectum from pressure of faeces. The authors are opposed to early radical surgery for two reasons: (1) 30 per cent. of patients have additional congenital defects, usually cardiac — until it is known whether they are likely to survive there is no point in performing extensive surgery; and (2) the mortality of early radical surgery is unjustifiably high. If the condition of the baby is good a colostomy is performed; if the condition is bad a caecostomy is carried out. Nothing more is done until about the age of 6 years. The rectum is then completely mobilized through a salcral approach, and the funnel-shaped fistula brought out through the anal dimple. Should faecal incontinence follow, a fascial sling repair (Wreden-Stone) is performed. There have been nine deaths among 35 patients treated; only one patient has been left with incontinence, the results otherwise being satisfactory.

R. T. Burkitt


Physical and psychiatric examinations were carried out on 27 patients (23 negro and four white) with pseudocyesis. The age range of the patients was 18 to 36 years; 22 of the 27 were admitted to the Endocrine Clinic of the Jefferson Hospital, Philadelphia, between July, 1946, and January, 1949; the proportion of cases of pseudocyesis among admissions to the maternity clinic was 1 in 250. The patients were observed over 1 to 31/2 years, and 36 episodes of pseudocyesis were recorded; the number of episodes in individual patients ranged from 1 to 4; eleven had never actually been pregnant.

The first and commonest symptom present in 26 patients, was a menstrual disturbance: hypomenorrhea in nineteen and amenorrhea in seven. A history of gradual abdominal enlargement was given by 24. Inversion of the umbilicus was not seen. Breast changes were frequent: enlargement, tenderness, secretion of milky or cloudy fluid, and enlargement of Montgomery's tubercles and the areola. Foetal movements were reported by 22 patients, as early as the first month and as late as the eighth month. These usually took the form of quivering or pulsating sensations in the left upper quadrant of the abdomen. Softening of the cervix was observed in nineteen patients. Gain in weight was generally greater than in normal pregnancy. Vomiting, frequent micturition, salivation, sleepiness, and faintness were often reported.

"Labour" occurred in two patients at the expected date, but ceased abruptly when the women were told that they were not pregnant. The authors point out how easily a mistaken diagnosis of pregnancy may be made on superficial examination: nine of the 27 had been told by one or more physicians that they were pregnant.

Although sixteen patients had been pregnant before the pseudocyesis, only one had a living child, and the desire for a child was strong in every patient in the series. Contributory motives were: (1) the need to secure the husband's wavering affections; (2) the need to prove the ability to conceive and to achieve parity with other women; (3) the wish for a child as a playing or companionship; and (4) the need for self-punishment. As a group, the patients were gullible and insecure; personal
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relationships were unsatisfactory and frustration-tolerance was low.

Laboratory studies, including endometrial biopsy, estimation of urinary gonadotrophin and 17-ketosteroids, and examination of vaginal smears, were carried out on some of the patients. The results of these studies may be summarized thus: ovarian function was good, and there was evidence of persistence of corpus luteum activity. This could account for many of the clinical manifestations, such as menstrual disturbances and softening of the cervix. It is presumed that mental conflict is capable of influencing the pituitary and causing the release of lacticogenic hormone, the suppression of follicle-stimulating hormone, and consequently persistence of luteal function. The abdominal enlargement is due to fat and forced contraction of the anterior abdominal muscles.

The key to treatment is psychotherapy. Telling the patient bluntly that she is not pregnant is to be condemned: she may threaten suicide, or go from one physician to another seeking a diagnosis of pregnancy. Gland treatment of itself is unlikely to prevent recurrences unless the patient is given some insight into the nature of her condition. Treatment is directed towards helping the patient to recognize and face her conflict and to deal with it in a more effective way. Desmond O'Neill


Believing that some of the organic psychoses show specific differences in response to the Rorschach inkblot test, the authors analyzed the Rorschach responses of 35 hospital patients in whom the diagnosis was senile dementia. Only those patients over 65 years of age were selected who had no significant localized brain lesion and had no history of mental illness or deficiency, were sufficiently co-operative, and could answer correctly at least one item on the Wechsler-Bellevue adult intelligence test. The patients were presented with all ten Rorschach cards and attempted all the items of the full intelligence test, whence an indication of their emotional and intellectual deterioration was obtained. The findings of the investigation were compared with similar work by Prados and Fried, Klopfer, and Piotrowski on cases of senile dementia, normal senescent decline, and organic brain damage respectively.

On the basis of this comparison and the analysis of their own results the authors draw these main conclusions: (1) The process of deterioration bears no necessary close relationship to age. (2) Reduction of capacities—such as an unduly long reaction time—and deterioration in personality structure, as exemplified by a high percentage of pure form and absence of colour, shading, and movement responses indicative of general inadequacy and loss of individuality rather than of "rigid control" of thought are related to the extent of the dementia. (3) An "efficiency quotient" of 50 to 55 is apparently a crucial level, at which complete inability to respond appropriately (gross inaccuracies of form perception) and a serious loss of contact with reality first appear. (4) The process of deterioration, as seen in the Rorschach and Wechsler results, is selective in its destruction of emotional and intellectual factors. (5) Certain striking pathological elements in the responses to the Rorschach cards, such as frequent "original" and "bizarre", as opposed to "popular", responses, perseveration, confabulation, oligophrenic detail, and certain accepted "signs" of organic brain damage, indicate that the test may be useful in differentiating senile dementia from normal senescent decline, late paranoid reaction, and depression. N. A. Standen


Of 625 cases of abortion admitted to hospital in Kiel in one year, 153 were induced. In 88 per cent. the abortion followed an intrauterine injection, usually of soap solution, and in 12 per cent. there had been some form of intra-uterine manipulation. Over half the patients were married and no difference was noted between the single patients in the timing of the abortion. The preference for soap solution appears to be due to its rapid action, half these cases aborting within 20 hours; water took 50 hours, and intra-uterine manipulation 100 hours. The danger of soap is its infective nature and its local corrosive action; necrosis of the cervix was seen in some cases and in two cases the unusual complication of infection of the right sacroiliac joint was seen.

The treatment of the infected cases was along the usual conservative lines, penicillin and sulphonamides being used, and only one patient died. D. C. A. Bevis


The burden of this paper is that the reaction of the nose to mixed ragweed pollen, in both sensitive and non-sensitive persons, is influenced by the state of the nasal tissues at the time of exposure. When the nasal mucosa is already in a condition of hyperfunction, such as occurs in infective rhinitis and in various emotional states, the response to pollen, as shown by hyperaemia, hypersecretion, swelling of the mucosa, and pain and itching in the nose, is greater. Experiments are described to illustrate these reactions.

Stimulation of anxiety and resentment in a patient who had hay-fever, without exposure to pollen, was shown to produce nasal obstruction and discharge, sneezing, and itching in the nose with pain. Another patient was exposed to pollen during a psychiatric interview. The effect on nasal function was slight until the interview was directed towards the patient's personal conflicts; symptoms and signs then increased considerably and did not diminish before the patient had been reassured and had recovered her mental balance.

The character of the mucous-membrane response in the hay-fever syndrome appears to be determined by: (1) the intensity and duration of exposure of sensitive individuals to the specific allergen; and (2) the intensity and duration of other environmental threats and assaults which provoke a response of nasal hyperfunction. In the latter group are situations arousing an emotional reaction which is reflected in the state of the nasal mucosa. Desmond O'Neill
Life Situations, Emotions, and Exercise Tolerance.
Duncan, C. H., Stevenson, I. P., and Wolff, H. G.

The authors set out to determine the relation between emotional tension, cardiac efficiency, and the occurrence of symptoms on exercise. Their subjects were eleven patients with such symptoms as palpitation, dypsnoea, and dizziness, but no organic heart disease; sixteen patients with these symptoms and organic heart disease; and eight healthy controls. Each subject was given a full physical and psychiatric examination. Measurements of circulatory function were made before and after exercise. Cardiac output and stroke volume were estimated by the ballisto-cardiograph; the cardiac index was defined as the output in litres per minute per square metre of body surface.

In the controls there were fewer emotional changes and less variation in exercise tolerance (E.T.) than in the patients. In all subjects, however, on the days of impaired E.T. there was awareness of mild psychic tension which prevented relaxation. On such days the cardiac indices at rest were higher than on the days of comparative relaxation; the higher output was due mainly to an increase in stroke volume rather than in heart rate.

In the subjects who had a long-standing intolerance of effort it was found that the signs and symptoms accompanying effort varied with the degrees of stress imposed by the circumstances of the moment. It was possible to show that a reduction in stress and therefore in emotional tension was followed by an improvement in circulatory function, as indicated by stroke volume and cardiac index. A similar close relationship between changes in E.T. and in the emotional state was observed in the patients with organic heart disease. In these, the impairment of E.T. was made up of an organic element and a functional element. In a heart much damaged by disease mild emotional tension could cause symptoms of effort; anxious patients were intolerant of effort even if organic damage was not severe. In some of the patients studied over a period of time, symptoms of effort intolerance were shown to be due to cardiac over-activity related to environmental stress and not to structural heart disease, and when emotional tension was relieved symptoms disappeared and cardiac efficiency increased.

E.T. was tested in several subjects before and after rapid changes in emotional tension which were experimentally induced. A reduction in tension following ventilation of feeling was found to be associated with an objective improvement in E.T.; where the interview increased anxiety and resentment, E. T. was impaired. In general there was a correlation between complaints of palpitation, dypsnoea, and dizziness and the degree of impairment of E.T. Symptoms occurred in some patients with intense bodily preoccupation during only mild physiological disturbances.

An important part of the treatment of a patient with heart disease is limitation of physical exertion. Equal importance should be given to reducing the load placed on the heart by cardiovascular mobilization associated with anxiety and resentment due to life stress; the increased cardiac work which this causes may be not only as great as that imposed by everyday effort, but also much more prolonged, and indeed in some patients almost constant.

Desmond O'Neill

Psychiatric Indications for Termination of Pregnancy.

In contrast to the dogmatic condemnation of abortion in all cases, the medical view is that abortion is justified if the life of the mother is in danger or her health cannot be maintained by any other means. The decision whether such prerequisites exist is difficult and controversial even when physical lesions are present: it is more difficult in presence of physical deviations and here a generally acknowledged code of guidance is missing.

The author cites certain mental defects (seelische Fehlentwicklungen) as indications for the termination of pregnancy, including the following: chronic depressive states increasing irritability and outbursts of anger, asthenic, hysterical, hypochondriacal, or paranoic developments, the anxiety-complex, and organ-neurosis. As conditions whereby, in the presence of such defective development, the health of the woman may be crippled permanently and profoundly are mentioned: a chronic conflicting situation, abnormal mental sensibility, lack of balance, especially when these conditions existed before pregnancy, and when, if pregnancy continues to term, serious conflicting situations are to be expected. The mental state at the date of examination is not so decisive as the whole development of the woman's life. Sometimes, in spite of tempestuous mental reactions, the interruption must be refused because the woman has a normal psychic constitution.

Suicidal attempts are rare; only 3 per cent. of all suicides are pregnant women. Thus the danger of suicide is insufficient to justify interruption. To prevent suicidal attempts the author recommends temporary treatment in an institution; this operates favourably in women who were mentally healthy before the pregnancy, but adversely when the woman was previously mentally unbalanced. The consent of the parents or, in the case of a married woman, of the husband should always be obtained. There is sometimes danger that the termination of pregnancy may later cause a form of "abortion neurosis".

Psychosis per se is not an indication for inducing abortion. It is justified only if there is danger that the pregnancy and its consequences may result in grave and permanent worsening. In cases of schizophrenia there is as a rule no change for the worse; it is an indication only if the symptoms occur for the first time during pregnancy or if symptoms previously present grow rapidly worse. Epilepsy is an indication if the frequency of fits increases at the beginning of the pregnancy.

The course of all other psychoses, especially in the manic-depressive patient, is independent of generative processes and in most cases there is no indication for abortion.

When, in an insane woman, the termination of pregnancy is recommended, the sterilization of the patient should be performed at the same time since each following pregnancy entails the danger of deterioration. In women who are not self-reliant sterilization may have to be ruled out either on account of the later mental upset or
because the woman may perhaps later bear a child without great risk to her mental health if she is guided by an intelligent, appreciative husband.

The psychiatric indications for termination of pregnancy must always depend to a certain extent on subjective judgements.

**A Statistical and Clinical Study of Sarcoma of the Uterus.**


Statistics of uterine sarcoma do not possess the uniformity associated with figures published on carcinoma. Improved methods of diagnosis and the wide appreciation of the importance of the subject have provided abundant material for investigation of both corporeal and cervical carcinoma, and figures have become more or less standardized; but with uterine sarcoma statistics show a remarkable variation. The proportion of sarcoma to myomata, for example, varies in literature from 0-3 per cent. (Raub) to 10 per cent. (Werner); the present authors seek an explanation for this divergence. They consider that the number of cases recognized is small because of difficulty in diagnosis, and quote Mayer, who said that, if tissue thought to be myomatosus were more carefully examined, in an increasing number of instances it would be found to be sarcomatous. An enormous amount of time and trouble is required for serial section and staining, but success would often follow.

A further difficulty is that no common criteria have been laid down as to what histologically constitutes a sarcoma. Mistakes and uncertainty are admitted by many authors. Hüsey had a 39-year-old unmarried patient who, 2 to 3 months after extirpation of the uterus for myoma, developed a recurrence which proved to be a myo-fusccellular sarcoma. Nasnata found a sarcoma in a cervical stump 5 years after a hysterectomy for myoma microscopically confirmed to be benign. Boschann discovered retroperitoneal metastases in a patient whose uterus had been removed 9 years before for myoma; these were described as borderline.

Material from two hospitals in Berlin was sent to the present authors. This series extends over 5 years (1945-9); 713 primary tumours were studied from one hospital, of which 371 were benign myomata, 310 carcinomata, and 22 sarcomata (23 intramural and nine endometrial). From the other hospital during the same years 497 tumours were examined; there were 264 myomata, 213 carcinomata, and twenty sarcomata (fourteen intramural, three endometrial; two were double tumours, in one case an intramural sarcoma with an endometrial sarcoma, and in the other case an intramural sarcoma with a carcinoma corporis). Altogether 3-4 per cent. of all uterine tumours examined by the authors were sarcomata.

[The original paper should be studied by the interested reader.]

**E. W. Kirk**

**The Psychoprophylactic Method of Painless Labour.**

(Психопрофилактическое обезболивание родов).


Under the system described by the authors the expectant mother is enlightened about the physiology of pregnancy and labour in a series of systematic lectures; towards the end of pregnancy the conduct of labour is repeatedly demonstrated to the patient.

This method was applied to 107 expectant mothers and painless labour was observed in 80-4 per cent. of the cases. The analysis of less successful cases showed that the number of instructions (lectures) was directly proportional to the efficiency of the method. It was also important that the last instruction should be given not more than 5 to 6 days before the date of expectant delivery.

**E. W. Collis**

**Experimental Application of the Psychoprophylactic Method for the Conduct of Painless Labour.**

(Опыт обезболивания родов психопрофилактическим методом)


This method was applied to 316 expectant mothers, of whom 204 were primigravidae and 112 multiparae. The sources of the fear experienced by women in labour were determined and analysed. The origin of fear may be unknown or may derive from impending labour pains, the possibility of perimal tears, and fear of foetal or maternal death. All types of fear could be removed by appropriate instructions.

In this series of cases 85-3 per cent. of primigravidae and 88-4 per cent. of multigravidae experienced excellent or good results in achieving painless labour. The weight of the infant had no influence on the conduct of labour or upon the degree of pain suspension. Many patients started labour at home; hence the assessment of the duration of labour could not be accurate. The foetal mortality was 0-95 per cent.; this mortality rate could be further reduced.

The psychoprophylactic method is regarded as harmless, securing painless labour at all stages of parturition, and seems to have no contraindications.

**E. W. Collis**

**Conduct of Painless Labour by Means of Suggestion.**

(Обезболивание родов внушением без предварительной гипнотической подготовки)


This method consists of conversation with the patient which starts at the time of admission and proceeds until confinement to bed in the labour ward is completed. Throughout this time the patient is instructed that the labour shall be painless and each step to accomplish it is explained.

The labour ward is situated away from the main hospital and lit by pleasant, warm light; silence is particularly observed. With each coming uterine contraction the patient is instructed to shut the eyes and proceed to sleep.

The effects observed on 460 patients in labour are said to be very encouraging; in 87 per cent. of the cases there was completely painless labour. There was no difference between the groups of primigravidae and multiparae. The younger group of patients, between 26 and 30 years, showed somewhat better results than the group
with an average age above 30. This method was applied to expectant mothers who did not receive antenatal psycho-prophylaxis and reported to hospital directly in labour.

E. W. Collis


This is a report on 1,000 deliveries of women who had been trained for childbirth according to methods advocated by Grantly Dick Read and now widely adopted in American clinics. Four years ago the nurses and physicians at the Thom's Clinic in Newhaven were taught the exercise techniques which are now used in the clinic. An attempt is made to prepare women for childbirth psychologically and physically by means of a training programme in which they are taught the fundamentals of reproductive anatomy and physiology, and are trained also in relaxation techniques and muscle control to aid the natural forces of labour. In labour they are encouraged to use this technique by those in attendance, on whose sympathy and interest much of the success of the method depends.

Of the 1,000 women, 375 were primiparae and 625 multiparae. In 214 of the primiparae (73.3 per cent.) who underwent spontaneous delivery not over 125 mg. of demerol (pethidine) or one dose of another agent was used. No analgesic was received in 19.9 per cent. In 530 (89.9 per cent.) of the spontaneous multiparous deliveries not over 125 mg. of pethidine or one dose of another agent was used and no analgesic was given in 49 per cent. No anaesthetic was given to 35.2 per cent. of the primiparae and to 46.3 per cent. of the multiparae. In primiparae the average total length of labour was 14.3 hours, in multiparae 8 hours.

Only eight infants (0.8 per cent.) were lost intranatally and neonatally (1,500 g. or over). The authors believe that this low foetal loss is largely due to the minimal amounts of anaesthetic used and the relatively short duration of labour.

[In future reports it would be an advantage if comparable figures were given of the results obtained in the clinic before the Dick Read technique was introduced, for there are still centres, mainly in Britain, where doubt is expressed whether the methods advocated offer any advantages in regard to duration of labour, diminution of operative deliveries, and stillbirths and neonatal deaths. No such figures have yet been published.]

F. J. Browne


From their study of 55 infants born of tuberculous mothers between 1943 and 1945 at the Sea View Hospital, New York, the authors confirm the work of Debré and LeLong in 1925, which showed that the causes of death of such infants are not hereditary or constitutional factors, but imperfect artificial feeding and poor standards of care. In a series of 260 births between 1933 and 1943 no case of congenital tuberculosis occurred. The authors give details of the methods of feeding both full-term and premature infants, the methods being founded upon the administration of evaporated milk, maltose, and dextrin, with added protein in the form of calcium caseinate where necessary, and vitamins C, A, and D.

It is emphasized that tuberculosis does not develop in these infants if they are removed from contact with their tuberculous parents; one infant did develop tuberculosis, but it was in contact with its mother; separation is essential. Tuberculosis in the mother tends to be associated with prematurity of the infant, due not to the tuberculosis itself but to the disturbed metabolism of the mother. No case of transplacental tuberculosis in the infants born of tuberculous mothers occurred in this series, although 17.6 per cent. of the mothers died of advanced tuberculosis shortly after delivery.

John Sumner


After reviewing the history of median episiotomy the author describes his technique for this operation. Seven illustrations show in detail the incision and its subsequent repair. It is necessary to perform the episiotomy before the head is crowned, thereby preventing damage to the underlying fascia and also reducing the risk of a third-degree laceration. The incision should be made in the exact midline of the perineum severing the tissue with nibling snips with the scissors. After the third stage is completed a Gelpi retractor is used to ensure good exposure. Number 00 or 000 chromic cat-gut is employed; the sutures in the vaginal mucosa must include the underlying fascia to prevent its retraction and therefore subsequent relaxation of the posterior vaginal wall. A subcuticular stitch for the skin of the perineum is used. In a third-degree laceration it is not necessary to suture the sphincter, but only the fascia surrounding the muscle. Early ambulation in all cases is prescribed.

The author reviews 1,500 cases of median episiotomy performed at the Mercy Hospital in San Diego; this number represents 54 per cent. of the total deliveries. Third-degree lacerations occurred in 28 instances (1.86 per cent.); all healed by first intention. The average stay in hospital was 4.9 days.

Jean R. C. Burton-Brown


