INTERNATIONAL SOCIETY OF INTERNAL MEDICINE

[FROM A SPECIAL CORRESPONDENT]

The Fifth Congress of the International Society of Internal Medicine (president, Sir RUSSELL BRAIN) was held in Philadelphia from April 23 to 26. It was attended by physicians from 43 countries. The items noted below are those thought most likely to interest British doctors. Some of the contributions were of considerable importance.

Anticoagulant Therapy

The first panel discussion was devoted to a consideration of anticoagulant therapy. The members of the panel were Dr. Tage Astrup (Copenhagen), Dr. Stuart W. Cosgriff (New York), Dr. James A. Evans (Boston), Professor Robert Hunter (Dundee), Dr. John W. Keyes (Detroit), Dr. Koller (Zurich), Dr. Paul E. Lucomsky (Moscow), and Dr. Murray Weiner (New York). The chairman was Dr. Irving S. Wright (New York). Dr. WRIGHT began by asking each member of the panel in turn what he thought of the use of anticoagulants in so-called good-risk cases of cardiac infarction. One said that he reserved these drugs for the most serious cases, but all the others advocated anticoagulants for every case of cardiac infarction. One reason given for this was that even in mild cases thromboembolic complications were fairly common, especially venous thrombosis, and anticoagulant therapy would reduce their incidence; another was that an apparently good-risk case sometimes became a bad-risk case within 24 hours, and the delay in starting anticoagulants might be crucial. Several of the panel added that they treated impending infarction with anticoagulants.

In cerebral vascular disease long-term therapy was generally thought to be fairly encouraging, particularly if the underlying lesion was thrombosis of the carotid or basilar artery. Short-term treatment was not successful, and patients with a systolic pressure over 200 mm. Hg or a diastolic pressure over 110 mm. Hg were specially liable to haemorrhage. Dr. ASTRUP pointed out that fibrinolytic activity, though low in the brain, was very high in the meninges. This might explain the tendency for cerebral infarction to be complicated by subarachnoid haemorrhage.

With regard to the intensity of treatment, the panel advocated maintaining a prothrombin time of between 30 and 35 seconds in acute cases, and around 25 seconds (that is, about 2 to 2½ times normal) in long-term treatment. Dr. COSGRIFF recommended the use of oral vitamin K_1 whenever the prothrombin time exceeded 35 seconds. It was well known that bleeding sometimes occurred at times when the prothrombin index was not particularly low, and Dr. KOLLER said that this was probably because the current methods of estimating the prothrombin time did not measure the actual factor responsible for blood clotting. He found that a test which depended on the Stuart-Prower factor gave results more closely related to the onset of bleeding. In support of this claim, Dr. Koller said that with Quick's method the prothrombin time often fell to a low level 48 hours after the start of anticoagulant therapy, although bleeding was rare in the first week; the Stuart test did not give a low reading for five days.

Dr. KEYES said that, once anticoagulant treatment was started in chronic rheumatic heart disease or in atrial fibrillation, it was usually necessary to continue it indefinitely. In general, however, the greatest benefit was observed in the first two years. After two years there was no significant difference between cases receiving anticoagulants and those not receiving them. If anticoagulants were withdrawn abruptly, there was some evidence of a rebound phenomenon, shown by a greater liability to thrombosis.

The panel emphasized the importance of educating the newly qualified doctor in the use of these potent and potentially dangerous drugs. It was also recommended that patients on anticoagulants should carry a card mentioning this fact in case they came under the care of another doctor on account of haemorrhage, syncope, or some other emergency. Professor HUNTER advocated the development of out-patient anticoagulant clinics. Other points which emerged in the course of discussion were: There is at present no generally reliable *bedside* test of prothrombin time. The time of day at which the prothrombin time is estimated does not matter. If a patient continues to develop thromboses in spite of adequate anticoagulant therapy the presence of underlying carcinoma, especially of the pancreas, should be considered. Patients very rarely become resistant to anticoagulants, however long treatment is continued. Fluctuations in activity are usually due to variation in degree of absorption, which may be due to diarrhoea or rarely to hardening of the outer layer of the tablets.

E.C.G. of Cardiac Infarction, and Hypertension

Dr. ALEXANDER L. MYASNIKOV (Moscow) described an interesting experiment designed to throw light on the genesis of the electrocardiogram of acute myocardial infarction. The heart of a healthy frog or rabbit was exposed, and a piece of necrotic muscle applied to the ventricle. When the E.C.G. of the intact animal was recorded, it was found to show ST elevation typical of acute infarction. Dr. Myasnikov believed that this pattern was due to the migration of potassium from the necrotic tissue into the adjacent healthy muscle. In support of this view was the finding that during the experiment the potassium content of the necrotic tissue fell while that of the underlying heart muscle rose. Dr. Myasnikov also reported experiments showing the importance of increased work of the heart in the development of cardiac infarction. Thus cardiac infarction could be produced in rabbits without ligation of any of the coronary arteries by combining cholesterol feeding with either forced exercise on a treadmill or narrowing of the aorta to produce hypertension. Thus the importance of rest in the treatment of coronary disease was emphasized.

Dr. ROBERT W. WILKINS (Boston) reported that chlorothiazide had a useful hypotensive action in essential hypertension in addition to its diuretic effect. He advocated a relatively small dose—e.g., 375 mg. daily. Sodium restriction was unnecessary, but potassium supplements were essential, potassium depletion being the main danger of this method of treatment. Dr. Wilkins had observed several cases of arrhythmia, and there had also been five sudden deaths, in some of which the drug might have played a part.

Dr. DAVID S. SHORT (London) discussed the pathogenesis of pulmonary hypertension in the light of recent haemodynamic and pathological studies. Post-mortem pulmonary arteriography had shown that a high pulmonary vascular resistance was always associated with widespread organic narrowing of the peripheral arteries and arterioles. Although this narrowing was due in part to obstruction of the lumen by thrombosis or intimal proliferation, the small arteries also showed a diffuse reduction in calibre and indistensibility. Dr. Short suggested as a working hypothesis that pulmonary hypertension developed in three stages. In the first place, it was likely that in certain individuals arterial constriction developed in response to a moderate rise in pulmonary arterial pressure, as suggested by Dr. Paul Wood. This arterial constriction might then be followed by organic shortening of the circular muscle and elastic laminae. Finally, thrombosis and intimal proliferation blocked the lumen so that the hypertension became irreversible.

Dr. STIG RADNER (Lund, Sweden) described a new technique for recording pressures from the aorta, pulmonary artery, and left atrium by means of a needle introduced into the chest at the suprasternal notch. This technique had been employed successfully in over 250 patients with normal or diseased hearts, and when correctly performed was safe and painless.

Medical Aspects of Cancer

One session, sponsored and arranged by the American Cancer Society, was devoted to a consideration of the medical aspects of cancer, under the chairmanship of Dr. Lowell T. Coggeshall (Chicago).

Dr. E. CUYLER HAMMOND (New York) discussed trends in cancer mortality and cure rates. The increase in the crude cancer death rate was largely due to the fact that people were living longer. When age was taken into account it was found that the cancer death rate for females had declined by about 10% in the past 20 years. The decline had been greatest for cancer of the liver and uterus; cancer of the breast had not altered, and cancer of the ovary had risen. The cancer death rate for males had increased, mainly because of the rising incidence of lung cancer. Deaths from leukaemia had also increased strikingly in males, but the mortality from gastric, liver, and skin cancer had fallen. Dr. Hammond pointed to the improvement in outlook following treatment as one of the most encouraging facts about cancer to-day. A comprehensive study from Connecticut showed that the five-year survival rate for cancer at all sites in both sexes had improved from 25% in the period 1935–40 to 32% in 1947–51. Among females the survival rate had improved from 29% to 38%. The greatest advances had been seen in the results of treatment of cancer of the colon, rectum, uterus (body and cervix), and prostate.

The value of exfoliative cytology in the diagnosis of cancer in the digestive tract was emphasized in a paper by Drs. WALTER L. PALMER, H. F. RASKIN, and J. B. KIRSNER (Chicago). They had studied 151 patients with lesions of the oesophagus, 69 of whom were subsequently proved to have carcinoma. Sixty-six of these 69 cases were identified cytologically, while the cells obtained from two patients with oesophagitis were incorrectly diagnosed as malignant. They had examined 871 patients with gastric lesions, of whom 131 were subsequently proved to have carcinoma or lymphoma. Of these, 125 were correctly diagnosed preoperatively, and there were four false positives. They had also examined 183 patients with lesions of the colon, 38 being subsequently proved to have carcinoma. A cytological diagnosis was made in 36, and there were no false positives. In the oesophagus, stomach, and colon, therefore, 95% of carcinomas had been correctly diagnosed by exfoliative cytology, and false positives were fewer than 1%. Dr. Palmer and his colleagues pointed out that this technique was more accurate than radiology in the diagnosis of cancer in these sites, but they also emphasized that it was a laborious procedure, and one which was at present unsuitable for routine use. The same technique was applicable to the diagnosis of cancer of the pancreas and biliary tract, but so far it had proved possible to identify malignant cells in only 60% of cases.

Dr. JAMES E. ECKENHOFF (Philadelphia) discussed the management of pain in cancer. For intractable pain in carcinoma of the pancreas he recommended injection of the coeliac ganglion by the posterior approach, first with procaine, and, if this gave relief, then with 25 to 35 ml. of 6% aqueous phenol. In the last months of a painful disease inhalations of trichlorethylene from an ordinary inhaler had helped. In the closing days he supplemented narcotics with the intravenous injection of a very dilute solution of thiopentone.

Poliomyelitis

The National Foundation for Infantile Paralysis sponsored and arranged a symposium under the chairmanship of Dr. Norman H. Topping (Philadelphia). Dr. JONAS E. SALK (Pittsburg) posed the question: Will poliomyelitis be controlled by killed-virus vaccine? Although admitting that no final answer could yet be given, Dr. Salk thought the evidence so far available was encouraging. Raised antibody titres had been shown to be maintained for at least four years, though this might not prove to be true of all individuals. There was also evidence that, even if antibody levels fell to zero, immunity might persist. It seemed that the degree of immunity was not adequately reflected by the antibody level measured in the laboratory. It seemed too that patients who had been adequately vaccinated in the past had a rapid enough antibody response to infection to protect their central nervous system. Dr. Salk emphasized that booster doses were essential because many children failed to respond to the first and even the second vaccination. Intradermal vaccination was unsatisfactory because of the small quantity of vaccine which could be introduced.

Dr. H. M. GELFAND (New Orleans) reported on the natural occurrence of poliovirus infections of Louisiana households before and after vaccination. Between 1953 and 1957, 106 households, each with a newborn baby, were kept under observation. Blood and faecal samples were collected at fixed intervals, and also whenever any infection occurred. These studies showed that in Louisiana infection with polioviruses occurred very early in life. Only 28% of those infected developed symptoms, and none developed paralysis. In 1957, following vaccination, the incidence of poliovirus infection was much lower than in the previous years. Dr. Gelfand did not, however, believe that this was the result of vaccination, because there appeared to be no significant change in the susceptibility of vaccinated subjects, or in the course of alimentary infection once virus was introduced into the home. It appeared, therefore, that killed-virus vaccine did not influence poliovirus dissemination.

Dr. HILARY KOPROWSKI (Philadelphia) described observations on immunization with living attenuated vaccine. The evidence so far available suggested that a single vaccination conferred long-lasting immunity. In order to secure protection against the three types of poliomyelitis virus, three separate vaccinations must be performed with intervals between them of 20 to 30 days.

The subsequent discussion emphasized the fact that there is still considerable difference of opinion in the U.S.A. regarding the efficacy of killed-virus vaccine.

Arthritis and Rheumatism

The problems of arthritis and rheumatism were discussed by a panel consisting of Drs. Elmer C. Bartels (Boston), Richard H. Freyberg (New York), David A. Long (London), Nanna Svartz (Stockholm), and Edward Scull (Hartford, Conn.), under the chairmanship of Dr. Philip S. Hench (Rochester, Minn.).

On the subject of whether aspirin is as effective as cortisone the panel felt that no proper comparison was yet possible, because the mechanism by which either drug produces its beneficial effect was still unknown; the differences might well be qualitative rather than simply quantitative. For the same reason, there was no logical basis for deciding whether the drugs should be used together or separately. If their fundamental action is different it would be rational to use them together. With regard to the optimum dose of prednisone for long-term treatment of arthritis, Dr. HENCH recommended 10 mg. daily for men, 8 mg. for premenopausal women, and 6 mg. for post-menopausal women. Some members of the panel used doses 50% greater than these.

The panel considered that the danger of a flare-up of infection during treatment with steroids had been greatly exaggerated, probably because of the adverse effect noted in animals. It was inadvisable to stop prednisone because of infection or of perforated ulcer. It might in fact be necessary to increase the dose. Gold was still valuable, especially in early cases of rheumatoid arthritis. It was less troublesome than cortisone, though also less powerful, and it took between three and six months to become effective.

In the treatment of gout, Dr. BARTELS said that both colchicine and phenylbutazone were almost 100% successful. Acute attacks could usually be aborted by a single

intramuscular injection of corticotrophin gel in a dose of 100 mg. Sometimes it was best to use two drugs in combination.

In spite of the danger of inducing leukaemia, the panel were unanimous that radiotherapy was still the most valuable therapeutic weapon in rheumatoid (ankylosing) spondylitis. It was emphasized that the lowest effective dose should be used. Phenylbutazone often gave relief, and was worth a trial first.

Drs. ROGER BLACK, JOSEPH BUNIM, and ERNEST SIMON (Bethesda, Maryland) reported on the side-effects of prednisone and prednisolone in the prolonged treatment of rheumatoid arthritis. They had studied 59 patients. The commonest serious complication was peptic ulceration, which developed in 15 patients: 5 developed gastric ulcer, 9 duodenal ulcer, and 1 had ulcers at both sites. Some of these patients were receiving less than 10 mg. of prednisone a day. Nine patients developed fractures; the vertebrae were involved 7 times, the ribs twice, and the pelvis twice. Two patients died from fulminating infections, and in three other cases death may have been due to steroid therapy. A satisfactory result without any important complication was obtained in 32 of the 59 patients.

Dr. SVARTZ described work in progress on the haem-agglutinating factor in rheumatoid arthritis. A substance capable of agglutinating sensitized erythrocytes can be demonstrated in the serum of about 85% of patients with rheumatoid arthritis. Agglutination is also produced by serum from approximately 50% of patients with lupus erythematosus and scleroderma, and less commonly in other conditions. Dr. Svartz and her co-workers have shown that the haemagglutinating factor in rheumatoid arthritis is precipitable in cold, and that the haemagglutinating substances found in other collagen diseases remain in the supernatant fluid. By ultracentrifugalization of the cold precipitate, it has been established that the rheumatoid factor is present in fractions containing macroglobulins. As a result of this work it is possible to foresee a specific test for rheumatoid arthritis and similar specific tests for other collagen diseases.

"Preleukaemia," Steatorrhoea, and Carcinomatous Myoneuropathy

Dr. JOHN S. RICHARDSON (London) spoke on the significance of the "preleukaemic state." He said that in the early stages of leukaemia the appearance of the marrow and peripheral blood might suggest aplastic anaemia (with or without myelofibrosis), pancytopenia, agranulocytosis, or even megaloblastic anaemia. He presented six case histories illustrating this preleukaemic phase. In three patients the interval between the initial presentation with hypoplastic anaemia and the appearance of frank leukaemia averaged three months; in the other three it was 15 months. The difficulty in diagnosis was increased by the late appearance or complete absence of enlargement of the lymph nodes, liver, and spleen.

Professor A. C. FRAZER (Birmingham) read a paper on the diagnosis and treatment of steatorrhoea. In children with gluten-induced steatorrhoea there were usually bowel symptoms, but cases of coeliac disease sometimes presented with anaemia or dwarfism. In adults with gluten-sensitivity abdominal symptoms were more often absent, and patients presented with defective growth, iron-deficiency anaemia, folic acid deficiency, or ulceration of the tongue or mouth. Gluten-induced steatorrhoea in both children and adults responded satisfactorily to a gluten-free diet, together with replacement of folic acid and correction of any electrolyte imbalance. To prove that a case of steatorrhoea was due to gluten-sensitivity wheat gluten should be reintroduced for a few days; if the diagnosis was correct the steatorrhoea would reappear. Tropical sprue was not due to gluten sensitivity. Treatment consisted in leaving the endemic area and taking folic acid. In refractory cases repeated antibacterial therapy might be necessary.

Sir RUSSELL BRAIN (London) delivered a special lecture on carcinomatous myoneuropathies. He described a series of over 40 patients in whom carcinoma was associated with a disorder of the nervous system or muscles unrelated to metastases. In about two-thirds of the cases the nervous system was affected, and in about one-third the muscles. In the neuropathic cases the most clear-cut syndrome was subacute cerebellar degeneration, and after that a sensory neuropathy. The myopathic picture was of muscular weakness with loss of tendon reflexes, but without evidence of involvement of the nervous system. Myasthenic symptoms might be a part of this clinical picture, and might respond to some extent to neostigmine and similar drugs.

Other contributions by British workers included papers on the relationship of the ABO blood groups and diseases of the gastro-intestinal tract by Drs. C. A. CLARKE and R. B. MCCONNELL (Liverpool), and on acute Ménière's disease by Dr. R. E. SMITH (Rugby).

ATTEMPTED SUICIDE

CHANGES IN ENGLISH LAW WANTED

A report by a Joint Committee of the British Medical Association and the Magistrates Association* advocates that the law of England and Wales be amended to provide that suicide, and, consequently, attempted suicide, should no longer be a criminal offence as such. This excludes cases of suicide pact and incitement to suicide. So far as possible no case of attempted suicide should be brought before any court except, for example, if there is a breach of the peace. This is the practice in Scotland.

The report says that magistrates' courts can impose imprisonment without option of a fine for up to six months, while at Quarter Sessions or Assizes heavier penalties can be inflicted. In a recent case sentence of two years' imprisonment was imposed (though reduced on appeal to two months). From 1946–55, 5,794 attempted suicides in England and Wales were brought to trial and 5,447 found guilty; 308 were imprisoned without option of a fine. The total number known to the police was 44,946. During 1952–6 the courts disposed as follows of persons convicted of attempted suicide:

Sentence or order	Number	Percentage of total
Imprisonment:		
Up to 1 month	31	1.1
Over 1 month and up to 3 months	76	2.6
Over 3 months and up to 6 months	84	2.9
Over 6 months	3	0.1
Probation order	1,842	63.0
Conditional or absolute discharge, bound over	819	28.0
Fine	21	0.7
Otherwise disposed of	46	1.6
Total ..	2,922	100

The Committee received information from a number of consultants in general and mental hospitals, who were practically all agreed that the person who has attempted suicide

Members for B.M.A.: Dr. Doris Odlum (Chairman) (Bournemouth), Dr. A. Barker (Whitstable), Dr. F. Bodman (Bristol), Dr. R. Forbes (London), Dr. T. P. Rees (London), Dr. H. C. Maurice Williams (Southampton). *Members for Magistrates Association:* Lady Adrian (Cambridge), Mrs. G. M. F. Bishop (Leicester), Mr. Seymour Collins (London), Sir Leonard Costello (Uffculme, Devon), Mr. G. J. Morley Jacob (London), Mrs. I. M. H. MacAdam (Leeds).

Members of the medical profession may obtain the report free of charge on application to the Secretary of the B.M.A.

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