CONFERENCES AND MEETINGS

Recovery after Resuscitation

[FROM A SPECIAL CORRESPONDENT]

An international symposium on "Recovery after Resuscitation" was held in Moscow on 25 to 29 November, 1968, under the auspices of the Academy of Medical Sciences of the U.S.S.R., organized by V. A. NEGOVSKII and A. M. GURVITCH. Some 50 people from various countries attended, all concerned in some aspects of resuscitation at either experimental or clinical level.

Professor V. A. NEGOVSKII, the first speaker, discussed the task of managing "the disease of a resuscitated person." He advocated the use of perfusion apparatus during the resuscitation period and even immediately after the beginning of cardiac massage. He had found this technique particularly helpful in the resuscitation of dogs in his laboratory. A. M. GURVITCH, working in the same department, said that the type and speed of changes in the central nervous system appeared to be favourably influenced by extensive exchange transfusion. Cerebral oedema was not the determining factor in the development of severe neurological changes in resuscitated animals if their haemodynamic processes and gaseous exchanges remained adequate.

Other topics discussed in the first two days ranged from the advantages of using perfusion apparatus and particularly supplying oxygenated blood to the liver (V. A. NEGOVSKII, Moscow) to the administration of hormones in the course of reanimation (A. A. SARKISSIAN, Yerevan); from the administration of tyrosine to patients in a state of shock (H. LABORIT, Paris) to the elegant neurophysiological measurements of G. I. MCHEDLISHVILI (Tiflis) and A. M. GURVITCH or the cellular work of T. GORDH and J. ADAMS-REY (Stockholm) and Y. M. LEVIN (Obninsk); from the enzyme studies of B. S. UVAROV (Leningrad) to the more clinical work of Yu. N. SHANIN (Leningrad), S. DUVAN (Bucharest), U. STRAHL (Berlin), and A. A. MATTORROS (Madrid).

Prognosis

The third day of the symposium was devoted to "Prognostic Studies after Resuscitation." G. ARFEL (Paris) described two main aspects of electroencephalographic (E.E.G.) monitoring during cardiovascular surgery; the first, on induced cardiocirculatory arrest at either deep or moderate hypothermia; the second on accidental occurrence of cardiocirculatory arrest during operations. In the early phase of resuscitation the return of E.E.G. activity after initial electrical silence showed a great deal of individual variability. In spite of periods of up to 1½ hours of total E.E.G. silence, complete E.E.G. and later clinical recovery was still possible, and it was unwise to attempt any firm prognosis in the first or even the second hour after resuscitation. Dr. Arfel thought, however, that E.E.G. data obtained two hours or more after resuscitation would be useful in prognosis.

R. S. SCHWAB (Harvard, U.S.A.) proposed three criteria for a definition of death in

clinical work. Firstly, total lack of responses to external stimuli when the patient was in deep coma. Secondly, absence of any spontaneous breathing. Thirdly, total electrical silence in the E.E.G. These features must persist for at least six hours, and preferably 24 hours, before a patient could be declared dead.

G. PAMPIGLIONE (London) emphasized that in clinical work, in contrast to animal experiments, the circumstances leading to cardio-respiratory and circulatory difficulties were not only impossible to prearrange but often difficult to evaluate retrospectively. In 150 patients studied in the first few hours following resuscitation after cardiac arrest carefully timed investigations of the electrical activity of the brain had given useful prognostic information about the state of the patient's brain, his chances of survival from that episode, the possible occurrence of seizures in the next few hours, the possible beneficial effects of assisted respiration and other therapy, or the occurrence of other complications. When careful E.E.G. studies were carried out at the patient's bedside the optimal timing for a general prognostic evaluation was two to twelve hours after the end of the resuscitation procedures.

E.E.G. Improvement

Continuing, Dr. PAMPIGLIONE said that the rate of E.E.G. improvement in the first few hours had practical value in prognosis, as at

this time the general clinical and neurological examinations had considerable limitations. An early distinction of recoverable from non-recoverable cerebral function through E.E.G. studies was of crucial importance to the patient and to the resuscitation team, often determining the subsequent management of individual cases.

E. W. PASHKOVSKY (Leningrad) had studied the clinical and E.E.G. data on a group of 14 patients resuscitated following mechanical asphyxia, injury to the heart, electric shock, and acute massive haemorrhage. In spite of the varied aetiology he thought that the chances of complete functional recovery of the central nervous system were minimal when the duration of the "electrical silence" at cerebral level was more than one hour, or when there was an intermittent activity for over two hours.

The remaining part of the symposium was devoted to the use of artificial circulation for the prolongation of "the state of clinical death" and for supportive treatment in the recovery period. The team from Kiev, led by W. E. JANKOVSKI, presented a great deal of experimental data suggesting that the cerebral cortex (in dogs at least) showed a considerably greater resistance to severe anoxia and ischaemia than had at first been assumed. I. V. TORSKAYA (Kiev) demonstrated the possibility of some degree of compensatory proliferation in selected groups of brain cells of either differentiated or undifferentiated type following resuscitation, and gave a more optimistic outlook to the long-term prognosis, at least in resuscitated dogs.

NEW APPLIANCES

Modified Bake's Dilator

Mr. J. J. SHIPMAN, consultant surgeon, Hitchin Hospitals, Hertfordshire, writes: A useful instrument—namely, Bake's dilator—has been modified by loading one end of a malleable silver wire with five olives ranging from 3 to 7 cm. in diameter (see Diagram). This modification avoids the repeated passage of dilators with inevitable minor injury to the common bile duct. To facilitate the passage of the instrument the wire is bent to resemble a letter S and

passed through a common bile duct opening, the surgeon standing on the right side of the table and holding the second part of the duodenum between the thumb and fingers of the left hand. As the instrument passes through the sphincter a vibration is felt as the sphincter progressively dilates.

I wish to thank Down Bros. & Mayer & Phelps Ltd. for preparing this instrument.

Common bile duct sphincter dilator fitted with five olives ranging from 3 to 7 mm. in diameter.