was the only anesthetic complication encountered. One case of meningismus following laminectomy, one case of pneumothorax during nephrolithotomy following inadvertant injury of the diaphragm and one case of postoperative shock occurred.

D. K. K.

GILLESPIE, N. A.: *Anaesthesia and Music: A Different Analogy.* Anesth. & Analg. **29**: 114–116 (March–April) 1950.

In this entertaining comparison of the arts of music and anaesthesia Dr. Gillespie has drawn in three "movements" and a coda a kind of contrapuntal analogy of the two arts. Those of us who have been indoctrinated in the impersonal, scientific approach of modern medicine are reminded that great music is not simply impeccable harmonics or the display of irreproachable technique. In the practice of anaesthesia today we have neglected the personal side of our work. The anaesthetist must be learned in theory and skilled in technique, but, like the musician, he should also have a profound knowledge and understanding of his fellow men. Without appreciation of these human values his relationship with his patients and colleagues cannot be truly harmonious.

J. H. M.

GORDON, D. A.: *Anesthetic Disasters.* Mod. Med. **18**: 45–49 (March) 1950.

This excellent little article will probably be read by as many as read the J. A. M. A., which makes it especially valuable. Doctor Gordon writes in a simple, forthright style of the dangers that every anesthesiologist knows as well as his own name—but which all too few surgeons and other physicians recognize as important. The welter of complicated ideas about operating room disasters would be partly clarified if more articles of this type appeared in widely read non-specialty journals.

The article would serve equally well as the basis for a lecture to senior medical students.

W. A. C.

BROWN, I. D.: *Pediatric Anesthesia.* M. Woman's J. **56**: 42–44 (July) 1949.

"Anesthesia in children presents many problems which differ from those of anesthesia in adults. . . . The normal basal metabolic rate is 20 per cent higher in the six year old than in a normal young adult. This is increased by fear, excitement, and each degree of fever raises it 7 per cent. The child thus presents a problem in preoperative medication which requires careful consideration, as the first purpose of the medication is to reduce this irritability. Opiates depress metabolism directly and also allay pain. However, they are respiratory depressants. . . . If closed technique is used, opiates are excellent, as rebreathing or bag pressure can be used to combat the depression. . . . The rapidly acting barbiturates are excellent for preoperative medication, and are the drug of choice in the infant as well as the older child who is to have open drop ether anesthesia. Often doses too small to produce obvious drowsiness give a complete amnesia which is very desirable.

"Avertin is a very satisfactory basal anesthesic agent, especially valuable for use before a prolonged operation. . . . Dosage of drugs cannot be standardized for any age group. . . . In general a child requires a larger dose in proportion to his size than does the adult. . . . In choosing between open and closed technique, one must remember that the small child may tire easily from exertion in breathing, and the resistance of long breathing tubes and a large soda lime cannister may be fatiguing. Slight pressure on the breathing bag during inspiration aids in preventing fatigue, and gives better lung ventilation. On the whole, however,

the open technique is probably better for the infant for this reason. Induction of anesthesia in the child requires great care, as this is the procedure the child remembers, and the impression produced may affect his whole future attitude toward operations. A slow administration without sudden increase in concentration, which tends to give the child a feeling of being smothered, is obviously important. . . . An infant can tolerate a long operation if the level of anesthesia is kept light except for the short periods where deep anesthesia is required. Oxygen by nasal catheter or into a Gwathmey-Yankauer ether mask is invaluable in the young infant, in an anemic or poor risk patient and for long shocking operations. Endotracheal technique is as useful in the child as in the adult, and in certain procedures is it indispensable. . . . The size of endotracheal tube in the child is most important, as the thickness of the wall of the tube diminishes the air space more in the smaller tubes. The tube with the largest lumen which will pass the orifice and into the trachea should be used, especially in the infant and in the younger child. The tube may be passed orally or nasally after viewing with the laryngoscope, but in the infant under 18 months it is usually more satisfactory to pass it nasally. . . .

"Choice of anesthetic agent for the child differs little from that for the adult."

A. A.

WATTS, D. E.: *The Effect of Local Anesthetics on the Respiration of Brain Homogenates.* J. Pharmacol & Exper Therap. **96**: 325–351 (July) 1949.

"In view of the widespread use of local anesthetics for surface, regional, and spinal anesthesia, an investigation of their in vitro action on the respiration of nerve tissue was considered desirable at this time. Recent developments in the use of fortified homogenates makes it possible to investigate the effect of drugs on highly active and specific enzyme systems. . . . The rate of oxygen uptake or carbon dioxide evolution was followed in Warburg manometers at 36.3 C. After a ten-minute period for gassing and temperature equilibration the stopcocks were closed, homogenates and substrate mixed and readings made at ten-minute intervals for 60 minutes. An apparatus with fourteen manometers was used in order that duplicate controls and five concentrations of any one drug could be examined simultaneously. In experiments to compare the relative effect of the anesthetics duplicate determinations were made on control vessels and on vessels with five of the anesthetics at a concentration of 0.005 M. This eliminated any possibility of variations due to differences in the homogenate preparation. . . . In a few of the anaerobic glycolysis experiments lactic acid determinations were made on the contents of the Warburg vessels immediately after the 60-minute experiment by the method of Edwards. The effect of nupercaine on the oxidation and reduction of cytochrome c was determined by following the rate of appearance or disappearance of reduced cytochrome c with a Beckman spectrophotometer at 550 mμ. Succinic dehydrogenase method. Ninety per cent methylene reduction, determined visually, was used as the end point. . . .

"Tissue homogenates were prepared by grinding fresh whole rat brain in cold buffer or distilled water for all experiments except those for some of the succinate and ascorbate oxidation determinations. Frozen beef brain stored on dry ice was used for these experiments. Control determinations showed homogenates prepared from the beef brain and rat brain gave comparable results