CRANIAL TRAUMA After a severe head injury, decerebrate rigidity and hyperpyrexia, either separately or together, must be regarded as an ominous development. Results of treatment of 108 patients with such injury suggest that mortality by old conservative methods was 77 per cent. In 26 patients, treatment has been modernized to include: respiratory insufficiency treated by immediate tracheotomy and aseptic tracheobronchial toilet; rigidity and hyperthermia treated by the use of the lytic cocktail and cooling by exposure to cold air and wet sheets; and cerebral edema prevented by infusion of hypertonic plasma. By these means, the mortality has been reduced to 38.4 per cent. By further improvements in technique, mortality should be lowered to 20 per cent. (*Maciver, I. N., and others: Treatment of Severe Head Injuries, Lancet 2: 544 (Sept. 13) 1958.*)

PULMONARY SECRETIONS In an attempt to reduce the viscosity of thick pulmonary secretions, 36 patients with chronic bronchitis were treated by insufflation into the peripheral bronchial tree of powdered desoxyribo-nuclease and chymotrypsin. Objective evidence of reduced sputum viscosity was obtained in nearly all patients during the period of treatment; 67 per cent of the patients considered the treatment helpful in that ease of expectoration was improved and dyspnea was diminished. (*Robinson, W., Woolley, P. B., and Altounyan, R. E. C.: Reduction of Sputum Viscosity in Chronic Bronchitis, Lancet 2: 819 (Oct. 18) 1958.*)

PHEOCHROMOCYTOMA In the thorax these tumors are usually found along the sympathetic trunk. When the surgeon encounters such a tumor, suspicion as to its nature enables the anesthetist and others to prepare for the hypertension and subsequent hypotension. Three cases of this problem are present with an extensive review. Emphasis is placed on the need for making the diagnosis, the fact that pheochromocytomas may be multiple, the biologic nature of the tumor with augmented secretion of catechol amines, and great danger of a surgical operation performed on a patient with unsuspected pheochromocytoma. (*Maier, H. C., and Humphreys, G. H.: Intrathoracic Pheochromocytoma, J. Thoracic Surg. 36: 625 (Nov.) 1958.*)

ETHER CONVULSIONS Ether anesthesia and hyperthermia in cats produced convulsions which could not be obtained under Pentothal, cyclopropane, chloroform, ethylene and nitrous oxide anesthesia. Pathological examination of animals up to two weeks later showed cerebellar damage with changes in or loss of the Purkinje cells. Electroencephalograms during convulsions showed abnormality occurring in the cerebellar areas earlier than in cortical areas which differs from anoxic convulsions. The pathological picture in the cerebellum resembles that produced by chronic alcoholic intoxication in animals. (*Owens, G., and Clark, W. M.: Cerebellar Responses During and After Experimental Ether Convulsions, Electroencephalog. & Clin. Neurophysiol. 10: 657 (Nov.) 1958.*)

OXYBARBITURATE An ultrashort-acting oxybarbiturate (methohexital sodium) was administered to 200 unselected surgical patients. Premedication consisted of meperidine or morphine with atropine or scopolamine. Intravenous injection was with 1 per cent solution, or 0.2 per cent intravenous drip solution. Smooth, rapid induction was accompanied by relaxation of the mandible, so that a pharyngeal airway could easily be introduced. The average dose of methohexital was 400 mg. There was no laryngospasm nor bronchospasm, although the drug was administered to known asthmatic patients. Hiccough occurred in four patients. Excitement after loss of consciousness was slight; convulsive type movements were noted in two patients. There was no local irritation nor thrombosis noted at the site of injection. A drop in systolic blood pressure of 10 to 20 mm. of mercury occurred in 22 patients after induction. There was one postoperative death in the series unrelated to the use of the compound. (*Weyl, R., Baha, U., and Alper, Y.: Clinical Evaluation of a New Ultrashort-Acting Oxygen Barbiturate for Intravenous Anesthesia, Surg. Gynec. & Obst. 107: 588 (Nov.) 1958.*)

NITROUS OXIDE Bleeding time and arterial blood pressure of patients under nitrous

oxide anesthesia were estimated and capillaroscopy performed. Increased bleeding tendency in those cases is due, *inter alia* to prolonged bleeding time, increased blood pressure, capillary dilation and increased number of capillaries per square cm. of surface, all of which were observed under the conditions of nitrous oxide anesthesia. (*Nesterov., S. S.: Haemorrhagic Tendencies During Nitrous Oxide Anaesthesia, Khirurgiya 33: 113, 1957.*)

ELECTRONARCOSIS One hundred and twenty-eight dogs were anesthetized by means of an apparatus with the following special features: (1) Direct current and rectangular impulses are used simultaneously. (2) Combined tension of impulses is of the order of 37–40 volts, and mean strength of current 7.4–13 milliamperes, while the galvanic current remains constant. (3) An electronic device, part of the generator, produces rectangular impulses the frequency of which can be varied from 1 to 130 cycles per second and the duration of which remains under control. Electronarcosis occurs in dogs when the current of 100 cycles per second is being slowly increased. In this way in 10–15 minutes (when 0.9–1 milliamperes is reached) the onset of sleep takes place. During the following 20 minutes the current is increased to 4–5 milliamperes in order to produce anesthesia proper. At the beginning of the operation the intensity of the current is slowly raised to 7– 13 milliamperes (impulses of 40 volts). All the time the cathode is applied to the frontal and the anode to the occipital area. No automatic or convulsive movements, no periods of apnoea were observed. The depth of anesthesia reached allows the performance of laparotomy, amputations and transplantation of limbs, interventions on soft tissues without obvious pain reactions shown by the animal. Absence of any influence of electronarcosis on vital functions of the organism was demonstrated by means of physiological, haematological and biochemical investigations. (*Ananev, M. G., and others: An Interim Report on Experimental Electronarcosis Employing an Apparatus Provided by the Institute of Research in Experimental Surgical Instruments and Apparatus, Eksper. Khir. 2: 3, 1957.*)

LOCAL FOR GASTRIC SURGERY Detailed studies were carried out on 140 cadavers to determine which nerves link the stomach with the central nervous system. It was established that there is unilateral and asymmetrical innervation of the stomach by branches from the right and left halves of the solar plexus, and bilateral innervation by branches of the vagus nerve. For complete anesthesia in gastric surgery it is necessary to introduce procaine solution under the fascia covering both right and left halves of the solar plexus and behind the esophageal hiatus of the diaphragm. (*Chislovskii, K. I.: Anatomical Basis for Complete Local Anesthesia in Gastric Surgery, Nov. Arkh. 1: 55, 1957.*)

STEROID ANESTHESIA To obviate the undesirable pain and subsequent injury of the vein chosen for the administration of steroid anesthesia, it has been found clinically effective to mix 10 ml. of a 5 per cent solution of the steroid in normal saline with 10 ml. of blood taken from the patient. This technique allows a rapid rate of injection of the mixture and avoids tardiness in obtaining satisfactory anesthesia. (*Rodriguez-Ramirez, J. M., and Ferrer-Alvarez, M.: Steroids in Anesthesia, Rev. Conf. Med. Panam. 5: 241 (July) 1958.*)

T & A Chief anesthetic requirements during tonsillectomy and adenoidectomy are three: (1) Maintenance of a clear airway, (2) prevention of the access of blood and debris to the larynx, and (3) sufficient control over the depth of anesthesia to avoid overdosage, to keep the field tranquil, and to assure prompt recovery. Insufflation methods of general anesthesia do not appear to meet any of these requirements. The advantages of the endotracheal method in providing these requirements as far as possible outweigh the reported disadvantages. (*Wrigley, F. R. H.: The Hazards and Principles of Anaesthesia for Tonsillectomy and Adenoidectomy in Children, Canad. M. A. J. 79: 459 (Sept. 15) 1958.*)

FEAR OF ANESTHESIA About half of a total of forty-three patients scheduled for elective surgery expressed fears regarding anesthesia. These fears included: (1) awakening before surgery was completed; (2) suffoca-