
The following studies of anesthesia during World War II are based upon the experiences of the author as a member of an Auxiliary Surgical Group. Membership in such an organization enabled him to serve in several types of army hospitals, first in England before the invasion and later in Europe. 

. . . The anesthesia department of the station and general hospitals was considered a section of the surgical service. . . . On the preoperative visit the patient’s condition was ascertained and the preoperative medication was ordered. . . . On the postoperative visit the patient's condition was noted; and if there were any complications attributable to the administration of the anesthetic, the proper treatment was carried out. The anesthetic section was also charged with the maintenance of the oxygen therapy equipment in the hospital. . . . The anesthetists were responsible only for the maintenance of the anesthesia equipment in the operating theaters. The procurement and maintenance of all other equipment in the operating section was the responsibility of the chief surgical nurse. This system was efficient. . . .

"The anesthetic equipment in this particular hospital consisted of two field type portable Heidbrink machines and one portable McKesson machine. Gas mask tubing was used in place of the corrugated rubber breathing tubes which could not be obtained. This served well but was a little short. . . . For local and regional anesthesia purposes 5 cc. ampules of 20 per cent solution of metycaine were available. Pontocaine solution, 1 per cent in 2 cc. ampules was available for spinal anesthesia. . . . For inhalation anesthesia, oxygen, nitrous oxide, ether and ethyl chloride were obtainable. . . . During and following the Normandy invasion this Auxiliary Surgical Group was used to augment the medical services of the field and evacuation hospitals of the First United States Army. . . . The anesthetists in the Surgical Group were physicians who in civilian life had devoted themselves to that specialty. Each team consisted of a chief surgeon, an anesthetist, an assistant surgeon and a fourth physician who was designated as the shock man. . . . There were four enlisted men on each team. Their functions were: (1) scrub nurse, (2) circulating nurse, (3) assistant either to the shock man or at operations as the occasion demanded and (4) assistant to the anesthetist. . . . The team ordinarily used the equipment of the hospital to which it was attached, but each team had a certain amount of equipment of its own which as time went on gradually increased. . . . The great majority of patients coming to a field hospital were the non-transportable severely wounded soldiers. . . . There was a total of 245 operations during a five-month period. . . .
"The greatest use of pentothal was for superficial and extremity wounds. . . More than half of the extremity wounds were operated upon with ether anesthesia. One thoracic operation, a closure of a sucking chest wound, was performed under pentothal anesthesia. All other abdominal and thoracic operations were performed under ether anesthesia preceded by N₂O, ethyl chloride or pentothal for induction. Ethyl chloride was used most commonly for induction into ether anesthesia. It was quite satisfactory for this purpose. . . . The complications which were seen appeared to be related to the patient's serious condition and to the management during anesthesia and operation rather than to the use of any particular anesthetic agent. Good anesthesia in these patients depends largely on the application of fundamental principles learned in more ordinary conditions." A. A.

A. A.


"The measurement of blood loss during surgical operations has been reported by several authors. . . . The present authors have compiled the findings of these different investigators in an effort to compute an 'average blood loss' for different operations. . . . We have used the gravimetric technic which is based on the use of sponges, packs, towels or other linen employed for collecting blood during the operation and weighing them after use. . . . Our figures were consistent with those figures found in the American literature. . . . Many operations entail a loss of more than 500 cc. of blood, particularly radical neck dissections, radical mastectomies, intrathoracic procedures, removal of brain tumors, perineal repairs and orthopedic operations. Many of the patients who undergo these operations are in the old age group or in poor condition or both and cannot tolerate the loss of even small amounts of blood and invariably develop shock if it is not promptly replaced."

A. A.


"Local and regional anesthesia are desirable for minor surgical procedures because they obviate the risks and discomforts of inhalation anesthesia and allow such surgery to be performed in the office or outpatient department. . . . Commercially prepared, ready mixed and sterilized solutions are available in multiple dose vials. Such preparations are preferred from the standpoint of safety, stability, asepsis and ease of handling to those made up from tablets and powders. Accidents due to improper dilution or use of concentrated solutions and the possibility of contamination are averted. . . . Although elaborate needles, syringes, stopcocks and gadgets of various sorts are available they are not necessary. Successful regional anesthesia can be induced with simple equipment. Elaborate equipment does not supplant technical knowledge and skill. Sharp needles and leakproof syringes which are not awkward to hold will suffice, . . . Although numerous compounds possessing pressor and vasoconstrictor properties are available, the most satisfactory substance suitable for local anesthesia is epinephrine. . . ."

"Local and regional anesthesia is not entirely without hazards. When any sizable quantity of a local anesthetic drug inadvertently gains access into the blood stream the individual responds with a train of symptoms to which the clinician refers as a 'reaction.' Two types of toxic reactions are recognized: (1) the circulatory or de-