

general methods, and he should be free to choose on the basis of their respective indications and limitations. (*Bonica, J. J.: Regional Anesthesia—A Reappraisal, J. A. M. A. 168: 734 (Oct. 11) 1958.*)

SYMPATHETIC BLOCK A review of 100 orthopedic cases in which sympathetic blocks were used prophylactically indicates that valuable time in patient rehabilitation had been saved. Patients who showed any single symptom of reflex sympathetic dystrophy were selected for the early use of sympathetic blocks, rather than awaiting the full-blown picture of this complication. Thus, any traumatized patient who fails to progress satisfactorily—especially during post-traumatic physiotherapy—should be re-evaluated; and any manifestation such as aching pain, swelling, cyanosis, redness, or increased sweating of the part taken as a probable indication for block therapy. (*Brennan, J. J.: Use of Sympathetic Blocks in Orthopedic Surgery, J. A. M. A. 168: 504 (Oct. 4) 1958.*)

DRUG STERILIZATION All local anesthetic drugs, solvents, and commercially prepared local anesthetic solutions, as well as equipment, should be heat sterilized under the direction of the responsible physician. Such materials should be autoclaved at 225 to 260 F. under 18 to 22 lb. of pressure for 30 minutes. Hospital-prepared solutions should never be used for any regional block procedure. All multiple-dose vials should be autoclaved before initial use (lest the manufacturer has failed to sterilize them), and should be re-sterilized after use and before the remaining solution is injected into another patient. Standard local anesthetic drugs, solvents, and solutions, as well as vasoconstrictor drugs, can be autoclaved at least once under the above-mentioned conditions without sufficient loss of potency to alter the expected clinical results. (*Bridenbaugh, L. D., and Moore, D. C.: Is Heat Sterilization of Local Anesthetic Drugs a Necessity?, J. A. M. A. 168: 1334 (Nov. 8) 1958.*)

SPINAL ANESTHESIA A surgeon's series of 5000 operations performed with spinal anes-

thesia is combined with previous well-documented series to make a total of 65,677 cases of spinal anesthesia. In this combined group, there was not a single instance of permanent motor paralysis. Spinal anesthesia is preferred for operations below the level of the diaphragm, except for the following contraindications: (1) pre-existing neurological disease, (2) intestinal obstruction, (3) shock and/or coma, in which local infiltration or block anesthesia is preferred. Spinal anesthesia is otherwise considered to be excellent for elderly and poor-risk patients, including those with advanced cardiac and hypertensive disease. (*Scarborough, R. A.: Spinal Anesthesia from the Surgeon's Standpoint, J. A. M. A. 168: 1324 (Nov. 8) 1958.*)

SPINAL COMPLICATIONS Of 482 patients with neurological complaints following spinal anesthesia, 478 actually were exhibiting neurological symptoms of some other concurrent and entirely unrelated condition. In the majority of cases, the causative disease proved to be either an infectious neuronitis or a peripheral neuropathy. Differentiation between the two groups of conditions can be made only on the basis of a competent neurological examination and a complete electromyographic study. Such an evaluation should be undertaken just as soon as muscular weakness or paralysis becomes apparent. This urgency is based on the observation that damage to spinal nerve roots due to the anesthetic agent will not manifest itself on the electromyogram until three weeks after the actual date of anesthesia. Therefore, if electromyographic changes are found immediately or soon after spinal anesthesia, the pre-existence of some other disorder is indicated. Further delineation is based on the distribution of the denervation, viz.: in the complications of spinal anesthesia, denervation activity will be found in both the paraspinal muscles and those of the lower extremities, whereas in disorders of plexuses and peripheral nerves, electromyographic changes are confined to the respective muscle groups. (*Marinacci, A. A., and Courville, C. B.: Electromyogram in Evaluation of Neurological Complications of Spinal Anesthesia, J. A. M. A. 168: 1337 (Nov. 8) 1958.*)