

## EDITORIAL

THE influence of chemotherapy upon anesthetic mortality is a most interesting factor in evaluating statistical studies. Will the use of drugs to destroy invading parasites, without at the same time doing too much damage to the host, eliminate the all too common postanesthetic pulmonary infections and postoperative peritoneal infections? Will the use of this comparatively new type of therapy impose additional restrictions upon the use of certain anesthetic agents or contraindicate present accepted methods of preoperative medication, technical application of these anesthetic drugs or the postoperative care of anesthetized patients? May we relax our vigilance in preventing bacterial infections and concentrate upon maintaining adequate vital functional activity? All these and many more questions are unanswered at the present time. Unanswered because the final decision must come from clinical observation and such observations require a study of large numbers of cases by competent observers. Impressions will not supply the answer even though they are based upon hundreds of carefully studied results. Comprehensive clinical studies involve time and it is only a little more than five short years since Domagk experimentally showed that prontosil, the first of the clinically used sulfonamide drugs, was able to prevent death from streptococcic infections in mice. Since then this family of drugs has been accepted and come into widespread popular use more rapidly than can be said of almost any therapeutic remedy ever introduced into clinical medicine. Their introduction into medicine has been hailed as an achievement ranking with the two outstanding therapeutic discoveries of asepsis and anesthesia.

This sudden and meteoric rise of a new therapeutic remedy in surgery is more than welcome to the anesthetist who has rarely been completely exonerated when postoperative respiratory infections carried off the patient. However, one is reluctantly forced to reflect that progress is not complete unless it includes its own safeguards. The thought that every forward step has a corresponding drawback is not an optimistic one but it is apparently true. The improvements introduced in the mechanical administration of anesthesia also provided the possibility of a greater number of errors and laid a greater premium on the ability of the anesthetist. The admixture of oxygen in closed systems increased the dangers of fatal explosions of anesthetic mixtures. The extension of surgical manipulations to the cranial and thoracic cavities introduced new hazards for the anesthetist to overcome. Rather recent results from laboratory experiments indicate that the effects from certain anesthetic agents may be altered when certain conditions are obtained in some species of animals from the use of the

sulfonamide drugs. Another report indicates the possibility that the local application of them to wounds may be ineffective in checking infections if procaine or chemically related local anesthetics have been just previously applied to the area. There is no argument that the counter-acting disadvantages which are the rule in progress fall far short of adding up to the results from progress but these disadvantages, however minor, must be recognized early and corrected to make progress complete.

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"You never see two alike any one time and you never see one alike twice." So goes the humorist's thrust at contrary woman. The same quotation applied to the surgical patient serves not to evoke the laugh coveted by the comedian but to establish a wholesome if not too scientific implication in the creed of the anesthetist.

If humans were built to a stock pattern like motors so that they responded to physical agents in the fashion that engines do to fuel, administering anesthesia would be a simple and uninteresting business. Then it would be ostensible to proceed with this method, that drug or any given procedure for the contemplated surgical manipulation. The best available anesthetic procedure to assist the surgeon in performing cholecystectomy, pneumonectomy, nephrectomy, et cetera, could be described in confident detail.

It follows, however, that in the patient submitted to surgery, the disturbances in function of the organism, which are the chief concern of the anesthetist who must further disturb vital processes to obviate pain and produce operative conveniences, vary not only with the disease but with the individual. And it is the individual that is to be anesthetized, be he diabetic, anemic or toxic. The anesthetist who has an intimate, habitual, intuitive familiarity with the disturbances to be encountered, a familiarity won in the operating room, not in the library; and at the same time a scientific knowledge of these same disturbances; and, finally, possesses an effective way of applying these experiences and this knowledge, is equipped to practice successfully the art and science of anesthesiology. To be so equipped is an order of some magnitude, but not one without the liberal and expanding dimensions set up to guide other specialties in medical practice. The range of current progress and the scope of present knowledge in medicine provide those who practice it with more opportunities for furthering proficiency and increasing the effectiveness of their efforts than ever before experienced. If these opportunities are improved seriously the time may not be too distant when to speak of surgical patients the quotation above may cause less concern to more anesthetists.