cated measures to combat it with intravenous administration of saline solution, glucose, plasma and blood should be taken. . . . A hole may accidentally be cut in the trachea at any time. However, this complication is not so likely to occur at the first operation as it is at secondary operations on the thyroid gland. The anesthetist should recognize what has happened and increase the flow of gases so as to keep positive pressure in the trachea during all phases of respiration. With positive pressure maintained in the tracheobronchial tree, anesthesia can be maintained and no blood or debris will be aspirated into the trachea while the surgeon closes the tracheal defect. . . . Any sudden, severe, simultaneous drop in pulse rate, blood pressure and respiration should make one think of the stimulation of a sensitive carotid sinus. Successful treatment depends on early recognition, interruption of the operation, lowering the patient's head, and effective artificial respiration. Ten cubic centimeters of 1 per cent procaine should be injected at the bifurcation of the carotids on the side in question, and atropine sulfate, grain $1/100$, should be injected intravenously in an attempt to depress the vagal influence in this syndrome. These patients usually make a rapid and complete recovery when the source of stimulation to the sensitive carotids is removed. Air embolus . . . is a rare happening but must be borne in mind when the surgeon is dealing with large veins in the area of the thyroid gland. A sucking noise is heard especially on inspiration, and almost as suddenly, the pulse, blood pressure and respiration disappear. Unless the open vein is closed with dispatch, a fatality is almost inevitable. . . . In spite of careful preoperative preparation and adequate premedication, one occasionally sees a patient come to the operating table with marked tachycardia. Most often this is a sign of pure nervous instability rather than toxicity. However, the only way to distinguish the two conditions, I believe, is by inducing general anesthesia. The tachycardia of nervous origin will subside, while the severely toxic patient will show little drop in pulse rate and should have more preparation before operation is undertaken. We have no hesitancy in cancelling the operation when this extremely unusual response is seen. Convulsions under anesthesia . . . is another rare but, indeed, alarming and frequently fatal complication. . . . The anesthetist's first consideration is to stop the convulsion, and this can usually be done by the judicious intravenous administration of a soluble barbiturate, such as pentothal sodium. At the same time effective artificial respiration must be carried on to prevent the damages of anoxia. As treatment in such instances must be rapid and general rather than specific, it is well to administer calcium gluconate against the possibility of tetany, discontinue ether if it is being used, change to fresh soda lime to insure adequate carbon dioxide removal from the anesthetic mixture, and start the intravenous administration of glucose and saline solution. . . . Since most toxic patients show some reaction after operation, great care must be exercised in evaluating the cause of such a reaction. . . . Postoperative bilateral cord paralysis or marked edema of the false cords generally makes tracheotomy necessary." 27 references.

J. C. M. C.

DE TAKATS, GEZA, AND FOWLER, EDSON FAIRBROTHER: *The Problem of Thrombo-Embolism.* Surgery **17**: 153–177 (Feb.) 1945.

"3. Paravertebral Sympathetic Block.—Some of the symptoms following venous thrombosis are due to a spasm in the peripheral vascular tree.

This is especially evident when the iliofemoral segment is suddenly occluded and is surrounded by a periphlebitic exudate. A paravertebral block of the lumbar sympathetics will relieve the pain and much of the edema and restore the arterial pulsations, which are frequently diminished. They may even be absent and give rise to the diagnosis of arterial embolism. . . .

"Criticism of the Method: The method can be readily acquired with little practice and seems harmless. It will not protect the patient from an embolus, nor can it protect him from residual edema if the extent of the thrombus is too great. Whether it would localize a plantar vein or calf muscle thrombosis by releasing venospasm proximal to the clot is not certain, but phlebograms have been reported demonstrating the release of venospasm following sympathetic block.

"Sympathetic block may be useful many years following an iliofemoral thrombosis. It is then capable of relieving a chronic causalgialike pain with edema which originates in the periphlebitic reaction around the occluded vein. Stripping such a vein has been useful, but one or two sympathetic blocks may be equally effective. . . .

"Paravertebral Block.—We have used this paravertebral block occasionally since the report of Leriche, and more extensively since the reports of Ochsner and De Bakey. If the block is done early in the painful iliofemoral type (Group 3) it may hasten convalescence and disappearance of edema. However, with papaverine, heat to the abdomen, and high (eight to ten inch) elevation of the foot of the bed, our results are not much inferior to that obtained by paravertebral sympathetic block. We now limit the use of the method to patients whose arteries are in noticeable vessel spasm, whose toes are cold and blue, and who suffer great pain. Most patients, however, exhibit warm toes, large oscillations, and other evidence of inflammatory hyperemia. The results of paravertebral block in the late edemas, with neuritic pains aggravated by weather changes, are often striking. One or two injections combined with elastic support have relieved patients from long-drawn-out discomfort."

A. W. F.

BARKER, N. W.; CROMER, H. E.; HURN, M., AND WAUGH, J. M.: *The Use of Dicumarol in the Prevention of Postoperative Thrombosis and Embolism with Special Reference to Dosage and Safe Administration.* Surgery 17: 207–217 (Feb.) 1945.

"Contraindications

"On the basis of our experiences we feel that the following conditions constitute definite contraindications to the use of dicumarol: (1) the presence of definite renal insufficiency; (2) the presence of definite hepatic insufficiency or hepatogenous jaundice, particularly if associated with prothrombin deficiency; (3) subacute bacterial endocarditis; (4) purpura of any type; (5) blood dyscrasia with tendency to bleed, and (6) recent operation on the brain or spinal cord. Dicumarol should be given cautiously to patients who have (1) ulcerative lesions, open wounds, or potentially bleeding surfaces; (2) vomiting due to gastric or intestinal obstruction; (3) continuous or repeated gastric or intestinal drainage, or (4) dietary or nutritional deficiency. If an operation is contemplated, ample time should be available for return of prothrombin to normal if dicumarol is administered before the operation. If emergency operation is necessary on a patient who has prothrombin deficiency owing to dicumarol, large doses