ABSTRACTS

moderately firm infarcts. The femoral and vertebral bone marrow was grayish red and soft. Microscopically, the vertebral marrow showed an absence of maturation of the W.B.C. There was a moderately increased number of stem cells but only a few myelocytes and no adult polymorphonuclear neutrophils or eosinophils. Megakaryocytes were abundant, and the cells of the erythrocyte series were present in normal numbers. The femoral marrow was hyperplastic, but arrest of maturation of the W.B.C. was present also. The findings were the same as in vertebral marrow.

The clinical and pathologic pictures are characteristic of subacute bacterial endocarditis and acute agranulocytosis. The latter apparently began during the end of the third week of treatment with sulfathiazole. No other drugs known to produce this condition were used after the treatment with sulfathiazole was begun. The events in this case serve to emphasize the importance of close observation of the blood in patients who are under prolonged therapy with sulfonamides. New related chemicals may be used in large numbers of cases before such serious complications are encountered. The early favorable experiences may result in excessive confidence and in turn in a realization of necessary and persistent care.

R. M. T.


"Nerve injuries to the unconscious patient are not frequent, but are extremely disconcerting and usually result from the ignorance of the acquaintards of the anesthetist and staff in placing the patient on the operating table. Probably the most common nerve to be injured is the ulnar, because of its exposed position at both the wrist and the elbow. . . . In the face down or prone position, the musculospiral nerve in the upper arm may receive insult at the edge of the table if additional padding is not supplied. It should go without saying that, in the lithotomy position, the legs should be placed outside the standards that hold the stirrups; there have been cases in which injury has been done to the peroneal nerve because the leg was inside the standard, thereby compressing the nerve between the metal and the head of the fibula. In the lateral position, when the lower knee is flexed, there should be extra padding under it, to be sure that there is no compression of the peroneal nerve at the edge of the table. . . .

"A much more serious injury is one in which the brachial plexus, as a whole or in part, may be involved. Damage may be caused in two ways; first from direct pressure on the plexus from the shoulder brace alone. A good shoulder brace should be well padded, broad and straight, or with only a slight curve rising at right angles from the table. It should slide on a bar to accommodate the differing shoulder widths of individual patients, and should be placed so that when the patient is in the Trendelenburg position the weight is borne by the top of the shoulder girdle just above the acromial process. . . . The second form of injury is caused by placing the plexus under tension and stretching the nerves. Though an operation may start in the usual supine position with the arms restrained in the leather cuffs with elbow pads in place, it may later develop that the Trendelenburg position is required. The shoulder braces are hastily put on, but are not snugly adjusted, so that the patient literally hangs by the wrists during the rest of the operation. This exerts a tremendous pull on the nerves of the plexus, with the greatest strain being placed on the upper roots. The nerves of the plexus are also put under strain at any time when the elbow is elevated above the plane
of the shoulder, and this places more strain on the lower division of the plexus.... One situation in which this latter type of injury to the brachial plexus may arise is when all usual care has been taken in placing the elbow pad and shoulder brace, but it becomes necessary to give the patient intravenous solutions. The vein of the arm is selected and the arm is placed on a board or table at right angles to the operating table. If the arm is pushed farther and farther cephalad to allow room for the surgeon and assistants, the elbow is elevated past the plane of the shoulder, the plexus is put on a stretch, and the time needed to allow the solution to run in is sufficient to result in paralysis.... In any of these situations all is well as long as the elbow stays below the plane of the shoulder; but if the armboard, screen, or standard is gradually pushed toward the head until the elbow is above the shoulder, the damage becomes greater and greater, depending on the length of time the position is maintained....

"With care and attention to a few anatomical details, nerve injuries to the unconscious patient are easily prevented. Fortunately, the paralysis is usually transient; but, in severe injuries, residual paralyses have persisted for more than a year."

J. C. M. C.


"The observations reported in this investigation bring definite clinical evidence regarding the ergotoxine-ergotamine-adrenalin relationship. One of the most distressing phenomena in the surgical management of thyrotoxicosis is the associated tachycardia.

"In the surgical treatment of thyrotoxicosis there are two periods during which tachycardia becomes a most serious and alarming manifestation: (1) During operation, and (2) twenty-four to seventy-two hours postoperatively—the period of so-called crisis.

"The tachycardia occurring during operation... would seem best explained by an increased output of adrenalin as a result of the subjective sensations of anxiety, fear, etc., and those objective considerations of trauma, blood loss, anoxia, etc. This excess would have the most pronounced effect upon the cardiac rate because thyroxin specifically potentiates the action of adrenalin on the specific tissue of the myocardium.

"On the other hand, the tachycardia occurring during the crisis might properly be explained upon the basis of a thyroxin effect because of its operative release twenty-four to seventy-two hours previously, and the potentiation of a relatively normal adrenalin production. Therefore, in the operative reaction, adrenalin is a major factor and thyroxin a minor one, while in the crisis, thyroxin is the major factor and adrenalin the minor one.

"Accordingly, the operative tachycardia should be susceptible to more efficient control by ergotoxine and ergotamine than that of the postoperative period—this has been found to be the case. In the cases presented, ergotoxine and ergotamine had no effect on the anoxic tachycardia and they illustrate rather clearly the high value, in fact the necessity for a supplemental oxygen supply in postoperative cases of thyrotoxicosis."

Five case reports are given, showing the fact that ergotamine (or ergotoxine) had no effect on the tachycardia of anoxia, but that it seems to exert a definite control of the operative tachycardia with a rather stable pulse reaction postoperatively.

"The various mechanisms in operation to cause tachycardia might be grouped under three headings: (1) Increased adrenalin as a result of central..."