ABSTRACTS

moderately firm infarcts. The femoral
and vertebral bone marrow was gray-
ish 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 erythro-
cyte series were present in normal num-
bers. The femoral marrow was hyper-
plastic, 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 pa-
ients who are under prolonged ther-
apy with sulfonamides. New related
chemicals may be used in large num-
bers of cases before such serious com-
plications are encountered. The early
favorable experiences may result in ex-
cessive confidence and in turn in a
realization of necessary and persistent
care.

R. M. T.

WOOD, DOROTHY A.: Injuries to Nerves
During Anesthesia. California &
West. Med. 53: 267-268 (Dec.) 1940.

"Nerve injuries to the unconscious
patient are not frequent, but are ex-
tremely disconcerting and usually re-
sult from the ignorance or careless-
ness 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 ex-
posed 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 pad-
ding is not supplied. It should go
without saying that, in the lithotomy
position, the legs should be placed out-
side the standards that hold the stir-
rups; 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 should-
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 accommo-
date 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 aeroma-
il 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 re-
strained in the leather cuffs with el-
bow pads in place, it may later develop
that the Trendelenburg position is re-
quired. The shoulder braces are hast-
ily put on, but are not snugly adjusted,
so that the patient literally hangs by
the wrists during the rest of the opera-
tion. This exerts a tremendous pull on
the nerves of the plexus, with the great-
est 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 paralysis has 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