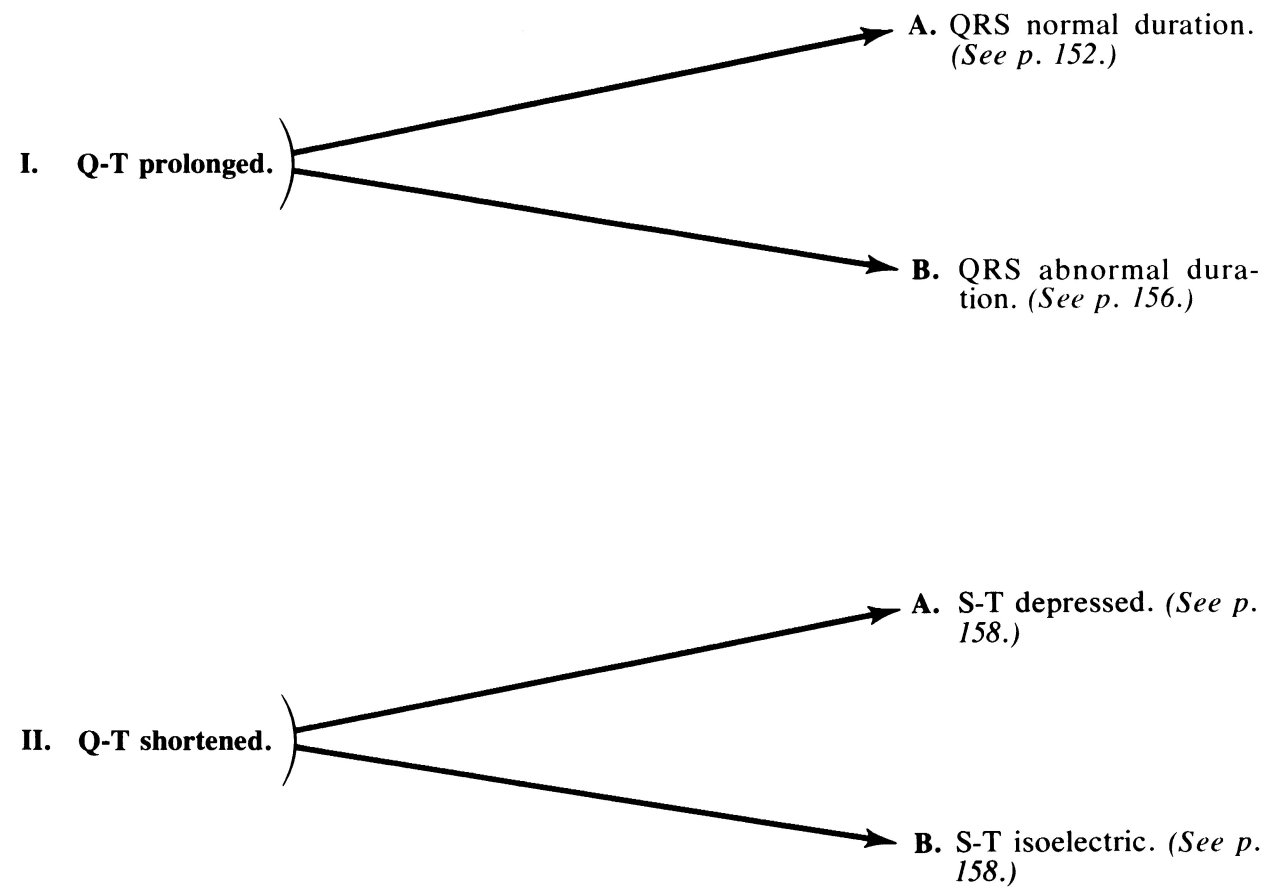


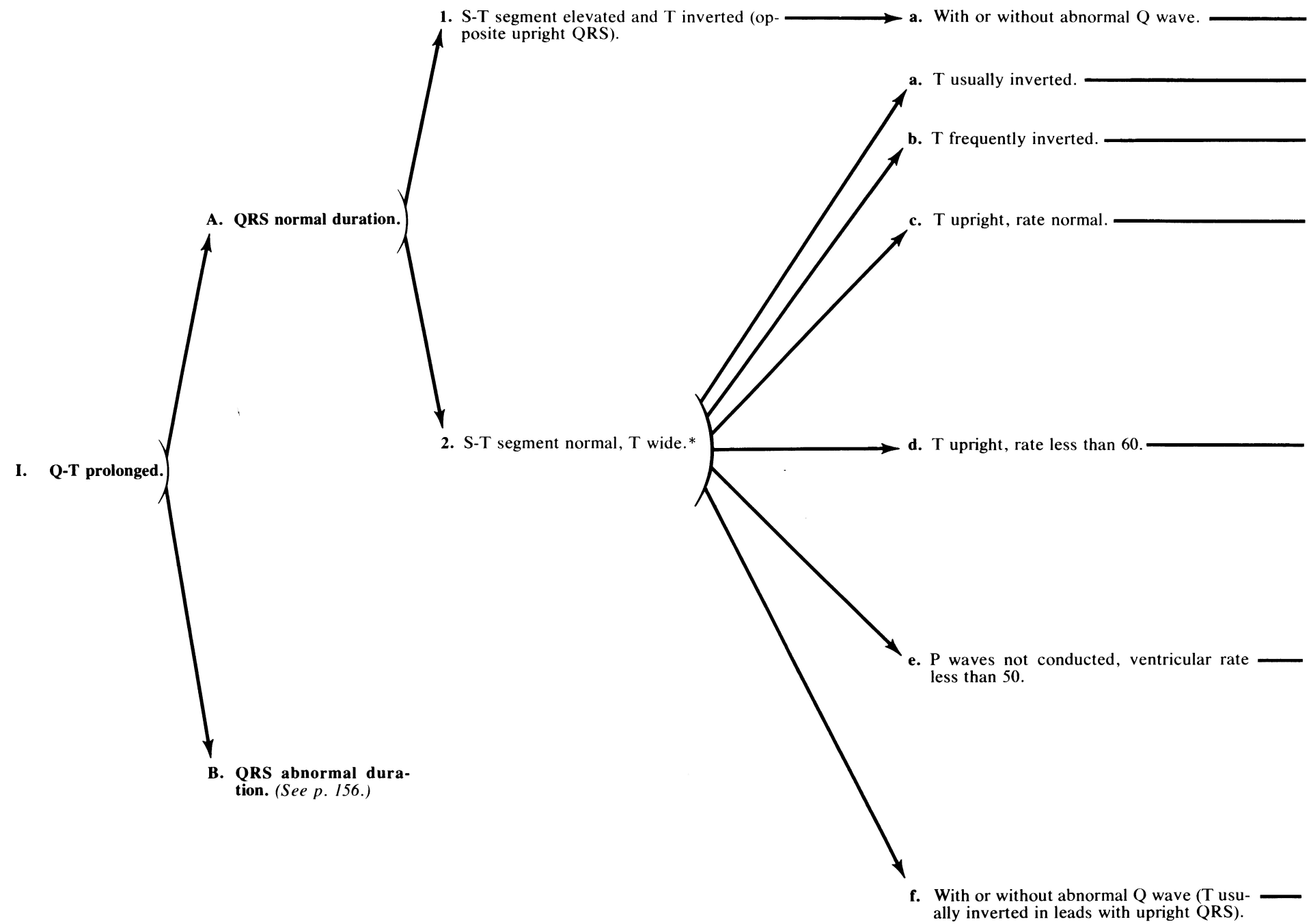
CHAPTER 8

Differential Diagnosis of the Q-T Interval

KEY PAGE—Q-T INTERVAL

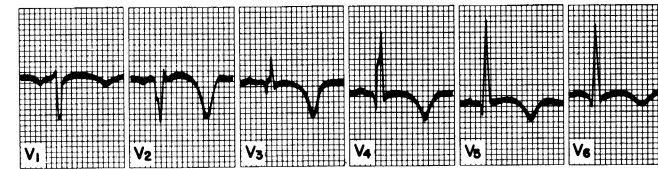


Q-T INTERVAL



*It is often difficult to differentiate a wide T wave and a fused T-U wave.

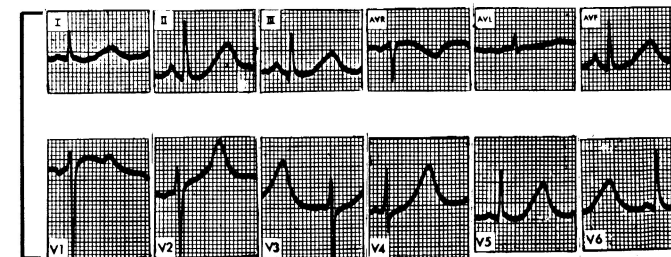
→ *Acute myocardial infarction.* → FIG. Q-T 1



→ *Acute cerebral injury.*

→ *Toxic states or infectious diseases, cerebrovascular accidents and injuries.*

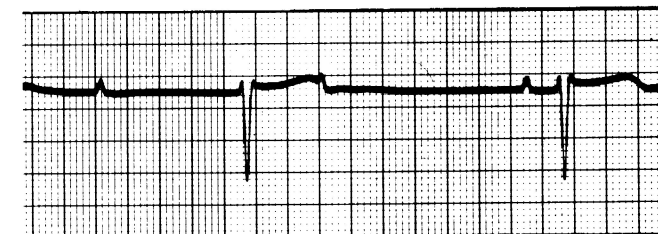
→ *Hypokalemia and drug effect, including phenothiazine and emitine.* → FIG. Q-T 2



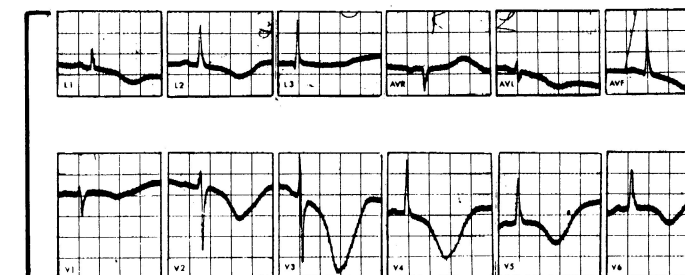
→ *Slow supraventricular rhythm.* → FIG. Q-T 3



→ *Complete heart block.* → FIG. Q-T 4

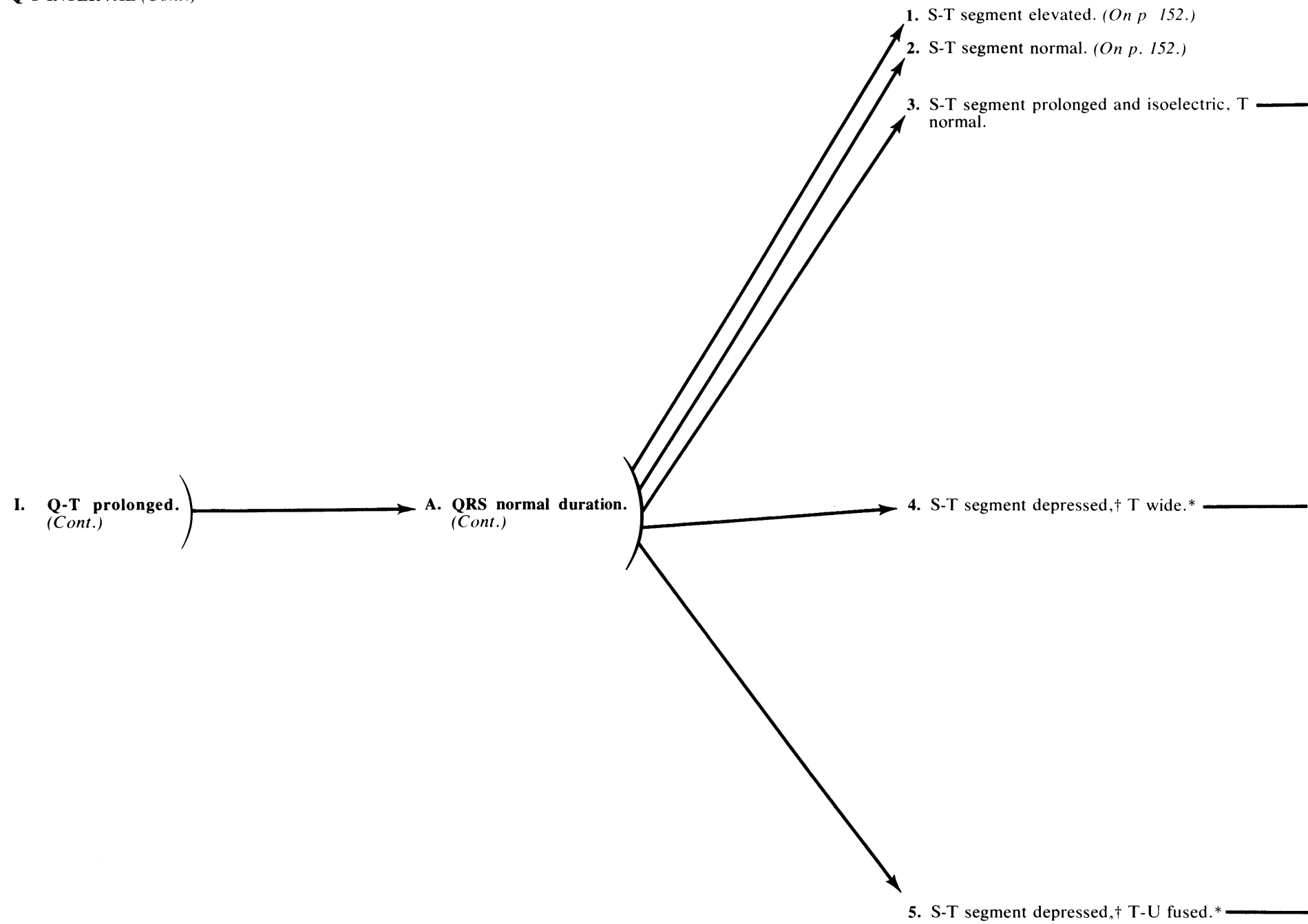


→ *Acute myocardial infarction.* → FIG. Q-T 5



P3 prol

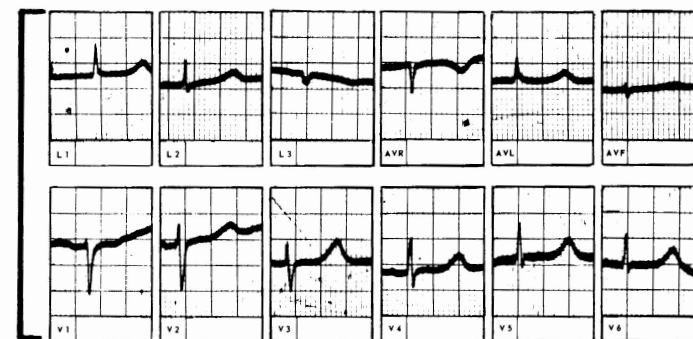
Q-T INTERVAL (*Cont.*)



*It is often difficult to differentiate a wide T wave and a fused T-U wave.

† At times, the shape of the S-T segment depression may suggest the clinical diagnosis.

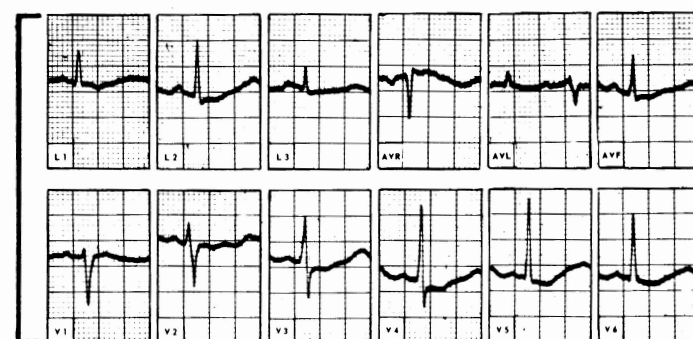
→ *Hypocalcemia.* → FIG. Q-T 6



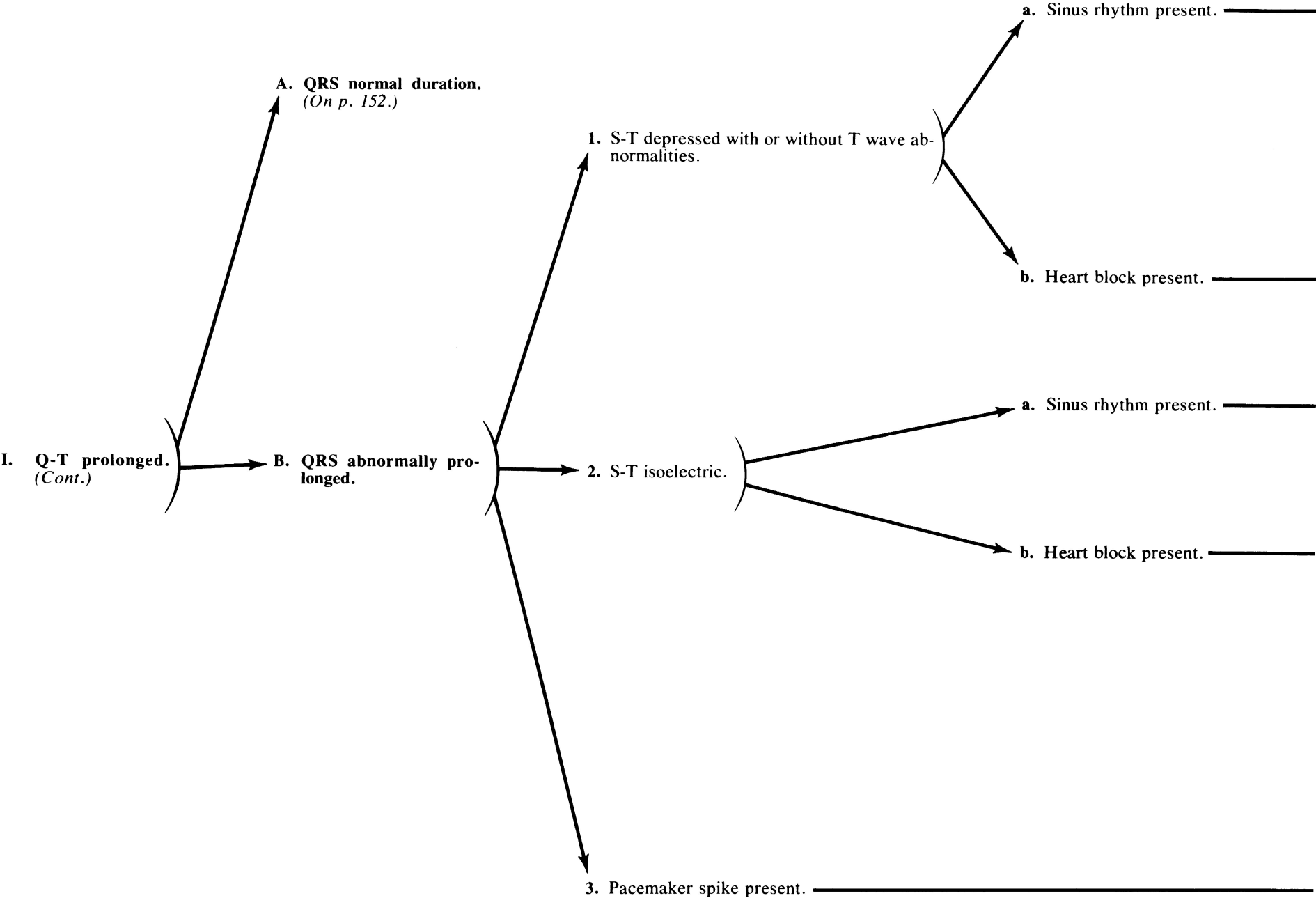
→ *Quinidine effect, subendocardial myocardial infarction, acute coronary insufficiency, subarachnoid hemorrhage.* → FIG. Q-T 7



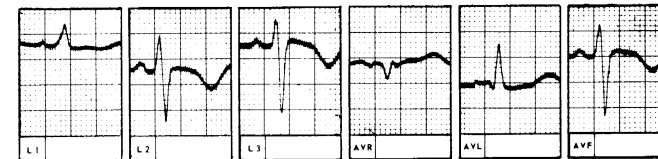
→ *Quinidine effect, procaine amide effect, hypokalemia.* → FIG. Q-T 8



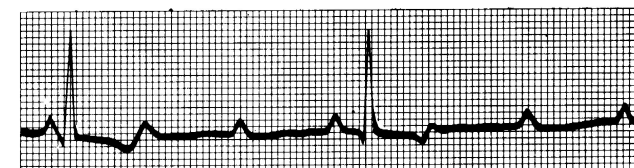
Q-T INTERVAL (Cont.)



→ *Intraventricular conduction defect including left bundle branch block.* → FIG. Q-T 9

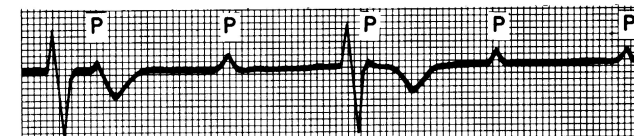


→ *Low idioventricular rhythm.* → FIG. Q-T 10

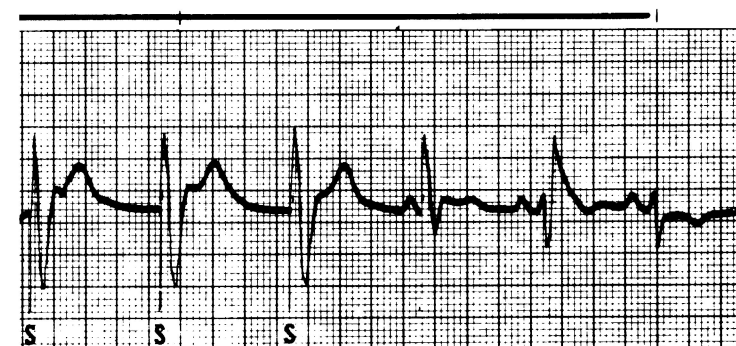


→ *Intraventricular conduction defect including right bundle branch block.*

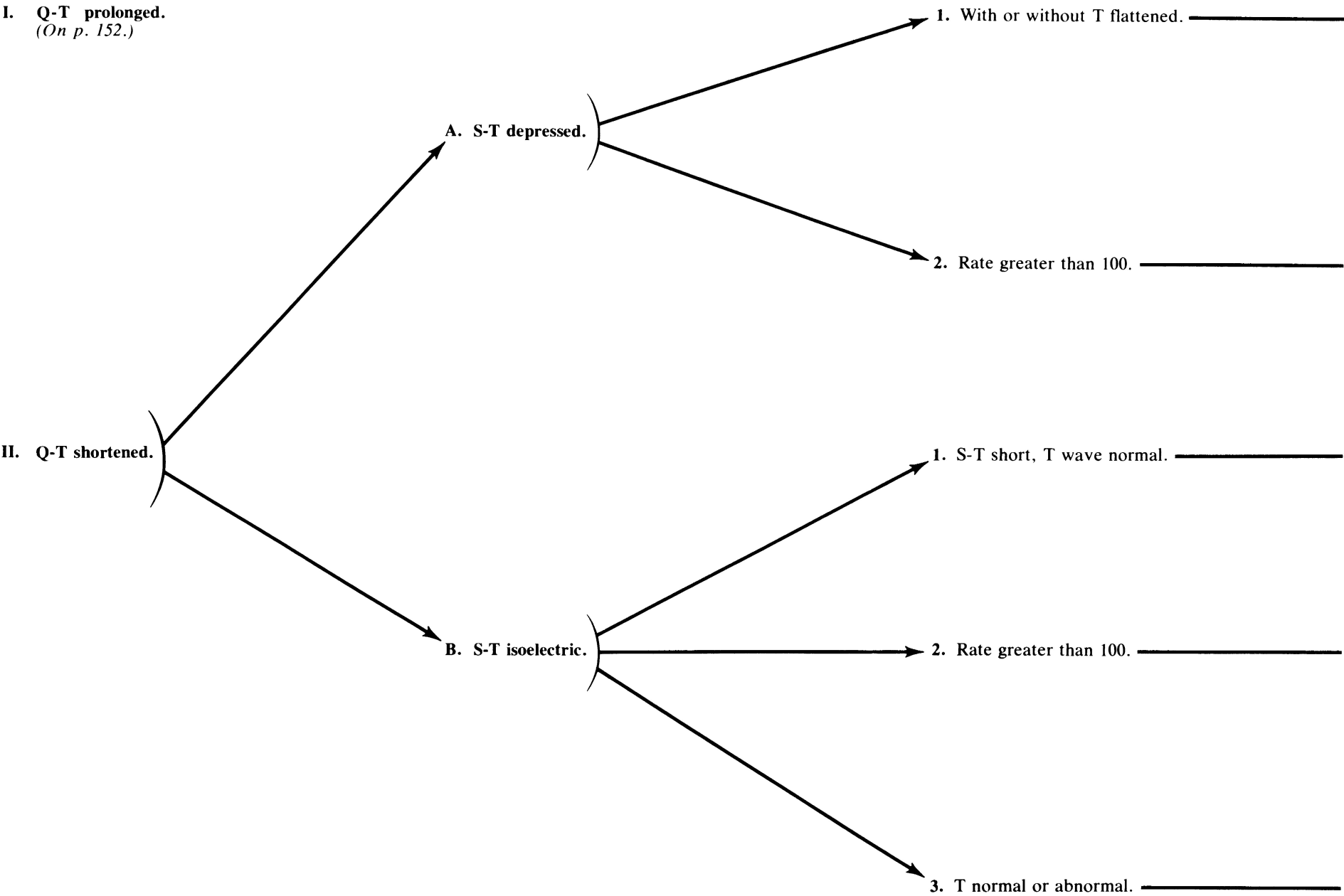
→ *Low idioventricular rhythm.* → FIG. Q-T 11



→ *Characteristic for a ventricular paced beat.* → FIG. Q-T 12
(Note the Q-T prolongation during paced beats and the return to normal in conducted beat [last beat].)

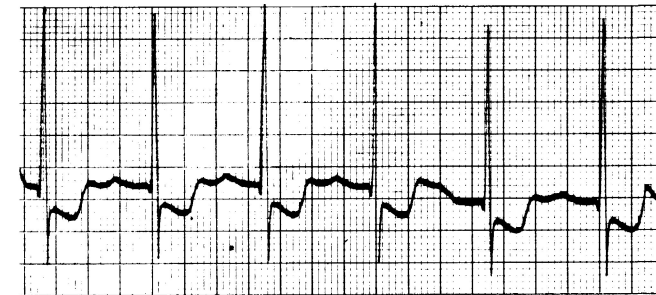


Q-T INTERVAL *(Cont.)*

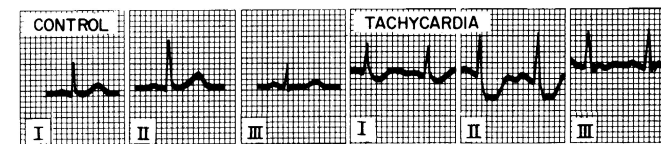


*A U wave is frequently present, but is usually distinct from the T wave.

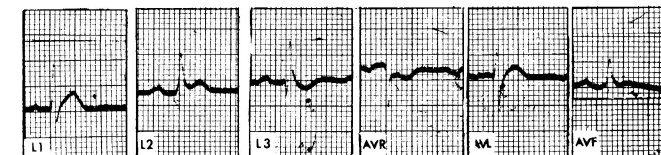
→ *Digitalis effect.* → FIG. Q-T 13



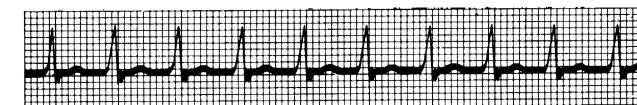
→ *Effect of tachycardia.* → FIG. Q-T 14



→ *Hypercalcemia.* → FIG. Q-T 15



→ *Effect of rapid rate, sinus tachycardia, atrial tachycardia, etc.* → FIG. Q-T 16



→ *Digitalis effect.** → FIG. Q-T 17

