common tachydysrhythmia found in children and refers to a rapid regular heart rate of 200 to 300 beats/min. As many as 1 in 250 children experience SVT (Schlechte, Boramanand, and Funk, 2008). The onset of SVT is often sudden, the duration is variable, and the rhythm may end abruptly and convert back to a normal sinus rhythm. Clinical signs in infants and young children are: poor feeding, extreme irritability, and pallor. Children may experience palpitations, dizziness, chest pain, and diaphoresis. If SVT is sustained, signs of HF may be seen.

The treatment of SVT depends on the degree of compromise imposed by the dysrhythmia (see Critical Thinking Case Study). In some cases, vagal maneuvers, such as applying ice to the face, massaging the carotid artery (on one side of the neck only), or having an older child perform a Valsalva maneuver (e.g., exhaling against a closed glottis, blowing on a thumb as if it were a trumpet for 30 to 60 seconds), have terminated SVT. If vagal maneuvers fail or the child is hemodynamically unstable, adenosine (a drug that impairs AV conduction) may be used. Adenosine is given by rapid IV push with a saline bolus immediately after the drug because of its very short half-life. If this is unsuccessful or cardiac output is compromised, esophageal overdrive pacing or synchronized cardioversion (delivering an electrical shock to the heart) can be used in the intensive care setting. Sedation is needed for both procedures. Cardioversion should never be done in a conscious patient. More long-term pharmacologic treatment includes digoxin or possibly propranolol (Inderal) or amiodarone for severe or recurrent SVT.

Critical Thinking Case Study

Supraventricular Tachycardia

You are working in the emergency department when a father comes through the doors, crying, carrying his 1-month-old infant. The infant is awake and very irritable. The father reports that the infant has not been feeding well for the past 6 hours, and the father has noticed sweating (diaphoresis) with attempted feeds. No history of fever is noted. Further assessment reveals a diaphoretic, crying infant with a respiratory rate of 60 breaths/min, blood