

Procainamide: side effects

What is it: Antiarrhythmic Agent, Class Ia

Indication: Both **supraventricular** and **ventricular arrhythmias**. For example, it can be used to convert new-onset atrial fibrillation, though it is suboptimal for this purpose

**Side effects: Ventricular dysrhythmia, bradycardia, hypotension and shock.** The adverse effects occur even more often if the daily doses is increased. Procainamide may also lead to drug fever and other allergic responses. There is also a chance that **systemic lupus erythematosus** occurs, which at the same time leads to polyarthralgia, myalgia and pleurisy. Most of these side effects may occur due to the acetylation of procainamide.

Other less common side effects (<1%) - Agranulocytosis, alkaline phosphatase increased, angioedema, anorexia, aplastic anemia, arrhythmia exacerbated, arthralgia, asystole, bone marrow suppression, cerebellar ataxia, confusion, demyelinating polyradiculoneuropathy, disorientation, dizziness, drug fever, fever, first degree heart block, flushing, granulomatous hepatitis, hallucinations, hemolytic anemia, hepatic failure, hyperbilirubinemia, hypoplastic anemia, intrahepatic cholestasis, leukopenia, lightheadedness, maculopapular rash, mania, mental depression, myasthenia gravis worsened, myocardial contractility depressed, myocarditis, myopathy, neuromuscular blockade, neutropenia, pancreatitis, pancytopenia, paradoxical increase in ventricular rate in atrial fibrillation/flutter, peripheral/polyneuropathy, pleural effusion, positive Coombs' test, proarrhythmia, pseudo-obstruction, psychosis, pulmonary embolism, QT<sub>c</sub>-interval prolongation, pruritus, rash, respiratory failure due to myopathy, second-degree heart block, tachycardia, thrombocytopenia, torsade de pointes, transaminases increased, urticaria, vasculitis, ventricular fibrillation, weakness

**Contraindications:** Hypersensitivity to procainamide, procaine, other ester-type local anesthetics, or any component of the formulation; complete heart block; second-degree AV block or various types of hemiblock (without a functional artificial pacemaker); SLE; torsade de pointes

Question:

A 46 year-old female on procainamide develops a new onset ANA test. The best course of action is to:

- a. Increase her dose
- b. Decrease her dose
- c. No changes on her therapy
- d. Consider another agent

Answer: D - If a positive ANA titer develops, the benefits versus risks of continued procainamide therapy should be assessed