

### Connection Between Gout and Heart Disease?

#### 1. Does gout increase the risk of heart disease?

**Question submitted by: Jack Kooy, British Columbia**

The circulating concentration of uric acid that can lead to gout has long been considered by some to be a cardiovascular risk factor. While it has been shown to predict cardiovascular disease, particularly in men, the real question is whether the reduction of uric acid will reduce cardiovascular disease.<sup>1, 2</sup> The answer is unknown. A fascinating study by Feig *et al* showed that allopurinol 200 mg b.i.d

reduced blood pressure in adolescents.<sup>3</sup> Importantly, 20 out of the 31 subjects who took allopurinol, reached goal blood pressure (by ambulatory blood pressure monitoring) compared to 1 out of 31 subjects placed on placebo. Currently, allopurinol and other uric acid lowering agents, are not recommended for cardiovascular risk reduction.

#### References

1. Krishnan E, Svendsen K, Neaton JD, *et al*: Long-term Cardiovascular Mortality Among Middle-aged Men with Gout. *Arch Intern Med* 2008; 168(10):1104–1110.
2. Feig DI, Kang DH, Johnson RJ: Uric Acid and Cardiovascular Risk. *N Engl J Med* 2008; 359:1811–1821.
3. Feig DI, Soletsky B, Johnson RJ: Effect of Allopurinol on Blood Pressure of Adolescents with Newly Diagnosed Essential Hypertension: A Randomized Trial. *JAMA* 2008; 300(8):924–932.

Answered by:  
**Dr. Thomas W. Wilson**

## Gastrointestinal Bleed Treatment

### **2. What is the best strategy for managing a patient suffering from a gastrointestinal bleed within three months of having an acute myocardial infarction treated with a drug eluting stent?**

#### **Question submitted by: Anonymous**

Drug-eluting stent (DES) therapy has represented a significant milestone in the evolution of percutaneous coronary intervention (PCI) therapy, dramatically decreasing the incidence of coronary artery restenosis. The restenosis rate — 30 to 40% with angioplasty without stenting — has declined to 20 to 30% with bare-metal stents, and to less than 10% with drug-eluting stents. But because of the risk of delayed endothelialization with drug eluting stents, patients require prolonged antiplatelet therapy to prevent stent thrombosis. Current recommendations call for a minimum of 12 months of dual

antiplatelet therapy (DAPT) post drug-eluting stent (DES) implantation for the prevention of stent thrombosis. And, as might be expected, prolonged DAPT carries with it an increased bleeding risk. Bleeding following drug eluting stent placement increases the risk of myocardial infarction and death. When faced with managing a post-stent patient with active serious bleeding, one is placed between the proverbial “rock and hard place,” with little choice but to temporarily discontinue the antiplatelet therapy until adequate hemostasis has been achieved. Platelet transfusion may even be necessary in

the event of life-threatening bleeding. While DES implantation has been found to be cost-effective in patients at low- or average-risk for GI bleeding, it may not be the most cost-effective strategy in patients at higher-risk for bleeding.

#### References

1. Bhatt DL, Fox KA, Hacke W, *et al*: Clopidogrel and Aspirin versus Aspirin Alone for the Prevention of Atherothrombotic Events. *N Engl J Med* 2006; 354(16):1706–1717.
2. Gupta N: Defining Patients at High Risk for Gastrointestinal Hemorrhage after Drug-Eluting Stent Placement: A Cost Utility Analysis. *J Interven Cardiol* 2010; 23(2):179–187.

Answered by:  
**Dr. Theodore Fenske**

Bleeding following drug eluting stent placement increases the risk of myocardial infarction and death.