

Dear friends of clinical journal club (load the file down at <https://www.mdc-berlin.de/cjc>):

The N Engl J Med image of the week shows a 71-year-old man who presented with fever and excruciating left-hand pain that developed 12 hours after eating raw seafood. His past medical history was significant for type 2 diabetes mellitus, hypertension, and end-stage renal disease. At time of presentation, a hemorrhagic bullae measuring 3.5 by 4.5 cm had developed in the palm of his left hand. Surgical intervention was performed and a causative organism was isolated. What is the most likely organism? You are offered *Staphylococcus aureus*, *Streptococcus pyogenes*, *Haemophilus influenzae*, *Vibrio vulnificus*, and *Pseudomonas aeruginosa*. Combination antiplatelet therapy with clopidogrel and aspirin may reduce the rate of recurrent stroke during the first 3 months after a minor ischemic stroke or transient ischemic attack (TIA). A trial of combination antiplatelet therapy in a Chinese population has shown a reduction in the risk of recurrent stroke. Investigators tested this combination in an international population. They assigned patients with minor ischemic stroke or high-risk TIA to receive either clopidogrel at a loading dose of 600 mg on day 1, followed by 75 mg per day, plus aspirin (at a dose of 50 to 325 mg per day) or the same range of doses of aspirin alone. The combination had less stroke, myocardial infarction, or death from cardiovascular disease at 90 days, but they bled more. In a multicenter, randomized, placebo-controlled, double-blind, phase 3 trial, investigators tested the efficacy of pharmaceutical-grade L-glutamine (0.3 g per kilogram of body weight per dose) administered twice daily by mouth, as compared with placebo, in reducing the incidence of pain crises among patients with sickle cell anemia or sickle β -thalassemia and a history of two or more pain crises during the previous year. L-glutamine supposedly has antioxidative effects and indeed reduced pain crises in this study. We then learn that L-glutamine, which is made from soy beans, is to cost the patients >\$40,000 per year. The next investigators tested the utility of procalcitonin determinations in reducing the use of antibiotics. They randomly assigned patients who presented to the emergency department with a suspected lower respiratory tract infection and for whom the treating physician was uncertain whether antibiotic

therapy was indicated, to one of two groups: the procalcitonin group, in which the treating clinicians were provided with real-time initial (and serial, if the patient was hospitalized) procalcitonin assay results and an antibiotic use guideline with graded recommendations based on four tiers of procalcitonin levels, or the usual-care group. Alas, procalcitonin determinations did not improve antibiotic usage, which was the same in both groups. Cardiologists hypothesized that fractional flow reserve (FFR)–guided percutaneous coronary intervention (PCI) would be superior to medical therapy as initial treatment in patients with stable coronary artery disease. Among 1220 patients with angiographically significant stenoses, those in whom at least one stenosis was hemodynamically significant (FFR, ≤ 0.80) were randomly assigned to FFR-guided PCI plus medical therapy or to medical therapy alone. The primary end point was a composite of death, myocardial infarction, or urgent revascularization. We learn that FFR determinations have clinical utility. The N Engl J Med review is on psychosis. The patient of the week has subcutaneous hemorrhages and two of his lower teeth just fell out. He also has some gait problems and falls down alot. In the Lancet, we tune in to the latest Ebola outbreak. We then inspect a study of baricitinib (JAK inhibitor) in patients with Lupus erythematosus. Thereafter, we learn about a promising HIV vaccine strategy where an attenuated adenovirus is outfitted with Env, Gag, and Pol antigens from HIV. The vaccine met pre-established safety and immunogenicity standards in both humans and rhesus monkeys in a phase I study. Phase 2b efficacy studies are underway. The health-care policy review is about NCDs. Google informed me that this abbreviation stands for noncommunicable diseases. The authors of the initiative emphasize starting from the top. I would think starting from the bottom might be better. We close with a case discussion concerning a severely asthmatic patient. He has eosinophilia. Join me on Wednesday or per youtube.

Yours,

Fred Luft

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