Dear friends of clinical journal club - load the latest file down at https://www.mdc-berlin.de/cjc. This website also gives you access to my seminar on Wednesdays 16:00 English and 17:00 German. You need to click on *Besprechung beizutreten*. If it fails to work immediately, keep on clicking.

A 61-year-old man with prolonged neutropenia from salvage chemotherapy for acute myeloid leukemia was evaluated on hospital day 37 for persistent neutropenic fever despite treatment with broad-spectrum antimicrobial agents. Physical exam was notable for a lesion with central necrosis on the chest and a similar lesion on the left palm. A serum 1,3-β-D-glucan level was elevated, and a galactomannan was negative. Computed tomography of the chest, abdomen, and pelvis was performed. Gram's staining of blood culture revealed septate, hyaline hyphae. Which of the following is the most likely causative organism? You are offered: Aspergillus fumigatus, Rhizopus arrhizus, Blastomyces dermatitidis, Fusarium keratoplasticum, and Cryptococcus neoformans. We rule out the two yeasts and the bread mold before we must guess the answer. In randomized trials, finerenone, a nonsteroidal mineralocorticoid receptor antagonist, improved kidney and cardiovascular outcomes in patients with type 2 diabetes and chronic kidney disease (CKD). Whether finerenone has similar effects in patients without diabetes who have CKD is unknown. Investigators randomly assigned adults without diabetes who had CKD (estimated glomerular filtration rate [eGFR], 25 to <90 ml per minute) and albuminuria (urinary albumin-to-creatinine ratio, 200 to ≤3500) and were using a renin–angiotensin system inhibitor to receive finerenone (10 or 20 mg daily) or placebo. The primary outcome was the total eGFR slope. Finerenone was associated with reduced eGFR slope and hyperkalemia was not a dominant problem. Radical prostatectomy is potentially curative in patients with high-risk localized or locally advanced prostate cancer; however, relapse occurs within 5 years in up to 50% of patients. Investigators conducted a phase 3, double-blind, placebo-controlled trial in which patients with newly diagnosed high-risk localized or locally advanced prostate cancer were randomly assigned to receive androgen-deprivation therapy (ADT) plus apalutamide (240 mg per day) or ADT plus placebo for 6 cycles before and after radical prostatectomy with pelvic lymph-node dissection. The dual primary end points were a composite of pathological complete response or minimal residual disease. Apalutamide met the endpoints, although since all the

patients already received ADT, I am not certain why. The treatment of lower-limb vascular disease is not the same as coronary disease. Whether sirolimus-coated balloon angioplasty for infrainguinal artery disease reduces the incidence of major adverse limb events remains unknown. In a prospective, open-label, noninferiority trial with a prespecified sequential testing strategy for superiority and blinded outcome adjudication, investigators randomly assigned patients with infrainguinal artery disease to undergo angioplasty with a sirolimus-coated balloon or with an uncoated balloon. The primary outcome was a composite of unplanned major amputation affecting the target limb or endovascular or surgical revascularization of the target lesion. Sirolimus-coating was helpful in reducing recurrence. In patients who are unresponsive after resuscitation from cardiac arrest, limiting oxygen exposure to that necessary to achieve acceptable oxygenation may increase the likelihood of survival with a favorable functional outcome. Investigators randomly assigned unresponsive adults receiving mechanical ventilation in the intensive care unit (ICU) after cardiac arrest to conservative or liberal oxygen therapy. Aside from politics, conservative or liberal, made no difference implying that the damage occurs at the primary event. The N Engl J Med review is on (cardiac) syncope. The mystery patient is a triple-negative breast cancer patient who develops a severe inflammatory syndrome after pembrolizumab. Ralinepag is a novel prostacyclin receptor agonist. In the Lancet, we inspect a trial of ralinepag in patients with pulmonary arterial hypertension. Ralinepag helped these patients. Primary B-cell lymphoma of the central nervous system is difficult to treat. High-dose chemotherapy combined with autologous bone marrow transplant appears to be the best option. “Lock step” guidelines dictate how children with outpatient acquired pneumonias are to be treated. Is a “step down” strategy perhaps better? A randomized trial out of Africa (PediCAP) suggests that this is the case. Old people commonly do not appear in randomized trials. A Lancet commission discusses advancing the relevance of clinical trials for older people. Another commission deals with artificial-intelligence application in health care, a “work force imperative”. Looks like artificial intelligence will be primarily directed at the expanding the administrative boiler plate rather than helping us with disease. In Science Magazine, we inspect a deep analysis (combinations and permutations) of converting to electric cars. How and when will this strategy really reduce carbon emissions? In Washington Post, we

encounter a 42-year-old woman who has had recurrent unconsciousness episodes since early childhood. No one knows why. A pacemaker was placed. Is this a good idea? A >20-year-old study out of my clinical department may help us decide. Load down the file and join me again on August 12, 16:00 English and 17:00 German.

Sincerely, Fred Luft

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