

Dear friends of clinical journal club - load the 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 76-year-old man presented to the dermatology clinic with a 2-day history of blood-filled blisters on the tongue. He reported no prior trauma or other bleeding symptoms. Physical examination was notable for hemorrhagic bullae on the tongue and gingiva, and purpura on the arms and legs. Which of the following lab abnormalities is most likely present? We are offered: Anemia, Elevated PT and PTT, Leukopenia, Thrombocytopenia, and Vitamin C deficiency. The question is rather difficult without our being able to see the rest of the patient. Enfortumab is an antibody directed at Nectin-4, expressed on certain solid tumors. Vedotin is conjugated on the antibody (a Trojan horse) and blocks mitotic spindle formation. Pembrolizumab is a PD-1 checkpoint inhibitor. No treatment has surpassed platinum-based chemotherapy in improving overall survival in patients with previously untreated locally advanced or metastatic urothelial carcinoma. Investigators conducted a phase 3, global, open-label, randomized trial to compare the efficacy and safety of enfortumab vedotin and pembrolizumab with the efficacy and safety of platinum-based chemotherapy in patients with previously untreated locally advanced or metastatic urothelial carcinoma. Enfortumab vedotin and pembrolizumab beat the platinum-based regimen. Severe food allergies are vexing for patients and parents. They can be lethal. The only approved treatment is oral immunotherapy (deconditioning) for peanut allergy. In a prospective trial, investigators assessed whether omalizumab, a monoclonal anti-IgE antibody, would be effective and safe as monotherapy in patients with multiple food allergies. Persons 1 to 55 years of age who were allergic to peanuts and at least two other trial-specified foods (cashew, milk, egg, walnut, wheat, and hazelnut) were screened. Inclusion required a reaction to a food challenge of 100 mg or less of peanut protein and 300 mg or less of the two other foods. Participants were randomly assigned, in a 2:1 ratio, to receive omalizumab or placebo administered subcutaneously every 2 to 4 weeks for 4 months. Indeed, the antibody reduced the reaction threshold in these patients. Microplastics and nanoplastics (MNPs) are emerging as a potential risk factor for cardiovascular disease in preclinical studies.

Direct evidence that this risk extends to humans is lacking. Investigators conducted a prospective, multicenter, observational study involving patients who were undergoing carotid endarterectomy for asymptomatic carotid artery disease. The excised carotid plaque specimens were analyzed for the presence of MNPs with the use of pyrolysis–gas chromatography–mass spectrometry, stable isotope analysis, and electron microscopy. Inflammatory biomarkers were assessed with enzyme-linked immunosorbent assay and immunohistochemical assay. The primary end point was a composite of myocardial infarction, stroke, or death from any cause among patients who had evidence of MNPs in plaque as compared with patients with plaque that showed no evidence of MNPs. Persons with MNPs in their plaques had a higher risk of a cardiovascular event at 34 months. This study connects MNPs to lethal cardiovascular complications. Eosinophilic granulomatosis with polyangiitis (EGPA), formerly Churg-Strauss Syndrome, is a vasculitis characterized by eosinophilic inflammation. Benralizumab, a monoclonal antibody against the interleukin-5 α receptor expressed on eosinophils, may be an option for treating EGPA. Investigators conducted a multicenter, double-blind, phase 3, randomized, active-controlled noninferiority trial to evaluate the efficacy and safety of benralizumab as compared with mepolizumab (anti interleukin-5). Both antibodies were similarly efficacious. Many fossil-fuel–derived chemicals (petrochemicals) interfere with the function of the endocrine system. These endocrine-disrupting chemicals (EDCs) are present in many industrial and everyday products (e.g., plastics, building materials, children’s toys, fabrics and dyes, detergents, cosmetics, and pesticides). N Engl J Med reviews the topic. The weekly N Engl J Med patient has systemic lupus erythematosus. She then develops a swallowing disorder, her BMI decreases to 16, and she presents with a peeling, fish scale-like rash on chest, abdomen, arms, and legs. Digital health tools can promote disease self-management, but the association of smartphone app engagement and medication adherence is unclear. In the Lancet, investigators assessed the relationship between objective smartphone app engagement and controller medication use in adults with tuberculosis. The intervention was successful in maintaining compliance. Intracytoplasmic sperm injection for male infertility may be superior to conventional in-vitro fertilization for couples with infertility with non-severe male factor. A Lancet trial shows that this was not the case. In the Lancet, we next

learn that black women in the USA have a six-times greater risk of being murdered (mostly shot) than white women. This risk is increasing in mid-western states and is associated with increasing racial inequality. The Lancet patient is a 30-year-old woman with nephroptosis (kidney collapses into pelvis) upon standing. The Lancet then presents four reviews on menopause. We focus on managing menopause after cancer. The N Engl J Med board examination question concerns management of a large pericardial effusion. In Science Magazine, we review a study on bioresorbable shape-adaptive structures for ultrasonic monitoring of deep-tissue homeostasis. In Washington Post, we learn how a young veterinary-medicine student helps obese dogs lose weight. Finally, we learn that women have to do less exercise to live longer. So much for the myth of male privilege. Join me again on March 13 for this week's presentation.

Best regards, Fred Luft, at <https://www.mdc-berlin.de/cjc>