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 61-year-old woman presented to the emergency department with a 2-day history of dull, intermittent lower abdominal pain. She reported no vomiting, diarrhea, bloody stools, or hematuria. The vital signs were normal, with the exception of the blood pressure, which was 174/107 mm Hg. On physical examination, tenderness was present in the left lower abdomen without rebound or guarding. The white-cell count and C-reactive protein level were normal. Computed tomography of the abdomen showed an ovoid lesion adjacent to the descending colon with ring enhancement, density of fat, and surrounding fat stranding. What is the most appropriate initial management? You are offered: Elective surgical removal, Intravenous antibiotics, percutaneous needle biopsy, urgent surgical removal, and analgesia only. We learn what radiologists mean with the term, “surrounding fat stranding”. More than half of patients with non-small cell lung cancer (NSCLC) have genomic alterations in tumor cells, including EGFR mutations in approximately 40% of patients in East Asia and 15 to 25% of those in Europe and North America. Osimertinib is a recommended treatment for advanced NSCLC with an epidermal growth factor receptor (EGFR) mutation and as adjuvant treatment for resected EGFR-mutated NSCLC. Investigators randomly assigned patients with unresectable EGFR-mutated stage III NSCLC without progression during or after chemoradiotherapy to receive osimertinib or placebo until disease progression occurred or the regimen was discontinued. The primary end point was progression-free survival as assessed by blinded independent central review. Osimertinib substantially improved progression-free survival in these patients. Patients with brain injury who are unresponsive to commands may perform cognitive tasks that are detected on functional magnetic resonance imaging (fMRI) and electroencephalography (EEG). This phenomenon, known as cognitive motor dissociation, has not been systematically studied in a large cohort of persons with disorders of consciousness. In a prospective cohort study conducted at six international centers, investigators collected clinical, behavioral, and task-based fMRI and EEG data from a convenience sample of 353 adults with disorders of

consciousness. They assessed the response to commands on task-based fMRI or EEG in participants without an observable response to verbal commands and in participants with an observable response to verbal commands. The presence or absence of an observable response to commands was assessed with the use of the Coma Recovery Scale–Revised (CRS-R). One in four participants without an observable response to commands performed a cognitive task on fMRI or EEG as compared with one in three participants with an observable response to commands. A brain–computer interface is a technology that enables direct communication between the brain and external computing devices. The technology decodes brain signals to facilitate communication and interaction with the environment. The basic strategy of a brain–computer interface involves recording cortical activity with the use of an interface comprising an array of electrodes that detect and convey electrical activity from the brain. We learn about a A 45-year-old man with amyotrophic lateral sclerosis (ALS) with tetraparesis and severe dysarthria, who underwent surgical implantation of four microelectrode arrays into his left ventral precentral gyrus 5 years after the onset of the illness; these arrays recorded neural activity from 256 intracortical electrodes. Investigators report the results of decoding his cortical neural activity as he attempted to speak in both prompted and unstructured conversational contexts. Decoded words were displayed on a screen and then vocalized with the use of text-to-speech software designed to sound like his pre-ALS voice. The investigators conclude that a person with ALS and severe dysarthria, an intracortical speech neuroprosthesis reached a level of performance suitable to restore conversational communication after brief training. In a second similar paper, investigators report on the durability of communication with the use of brain–computer interfaces in another person with progressive ALS. This device functioned for 7 years of independent at-home use. The N Engl J Med review is on the genetics of chronic kidney disease. The N Engl J Med case is about a 12-year-old autistic boy who subsists solely on hamburgers, French-fries, ranch dressing, glazed doughnuts, and juice boxes. His BMI decreases to 16 and his visual acuity decreases markedly. Nutrition in the intensive care unit (ICU) remains a debate topic, particularly protein intake. In the Lancet, investigators studied a 1-g/kg versus a 2-g/kg protein intake, reasoning that the higher level would result in less frailty and long-term sequelae in ICU patients. Alas, the higher intake led to worsened long-

term outcomes. Whether or not hypothermic donor hearts should be perfused and oxygenated or merely subjected to cold storage remains a matter of debate. A randomized controlled multicenter trial seems to favor hypothermic-oxygenated perfusion of donor hearts. Hook worm remains common in African children and is a common cause of iron-deficiency anemia. Clinicians routinely give albendazole, while veterinarians give animals emodepside. Which is better? In Tanzania, hook worm-infested children were randomized to albendazole or emodepside. Emodepside gave better cure rates but led to a very transient increase in blurred vision. The Lancet case is a young man without mental retardation, who has Wolf-Parkinson-White syndrome and cardiac rabdomyomas. He has a TSC2 gene mutation, albeit of unknown significance. The Lance reviews are on chronic lymphocytic leukemia and long-COVID syndrome. In Science Magazine, we learn about app-based epidemic COVID monitoring in England during the Euro 2020 football tournament. The Washington Post asks the readership: “Can you get sick from the germs in toilet plumes?” I had never heard of toilet plumes but perhaps we had better not flush. Read the file on-line and join me on August 21, in English and German.

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