soft acupuncture used in the West. However, our perspective is that hard acupuncture may be superior to soft acupuncture in the majority of diseases. It is valuable to carry out comparative effectiveness research on hard acupuncture and soft acupuncture.

The notion of “dose,” a key issue in the field of acupuncture, is examined in our study. The dose of acupuncture includes the frequency and total number of sessions (1), the number of needles, the retention time, the mode of stimulation, and de qi (2). The insufficient dose used in previous trials contributed to the controversial results of acupuncture for knee osteoarthritis (OA). It is undeniable that acupuncture is a complex intervention involving both specific and nonspecific factors. The nonspecific effect of acupuncture is large, but the overall effect of acupuncture is greater (3).

Additionally, there are several differences between soft acupuncture and the SA in our trial. The points punctured in soft acupuncture are acupoints, and those in SA are non-acupoints. Neither guiding tubes nor private rooms with soft music are used in SA. There are 17 sham EA controls, and the SA in our trial was one of the most commonly used sham controls (4).

In knee OA, it was reported that soft acupuncture did not confer benefits for pain or function compared with SA (5). Our findings suggested that the SA was an active treatment for knee OA (47.3% response rate). This is consistent with the results of a meta-analysis of individual patient data (42.5% response rate) (6). Moreover, EA, one type of hard acupuncture therapy, is superior to SA for knee OA both statistically and clinically (60.3% versus 47.3% response rate) (between-group difference 13.0%; \(P = 0.0234\); an increase in response rate of \(\geq 10\) compared to controls was clinically meaningful [7]). Given the recent evidence that strong-electricity EA is better than weak-electricity EA for alleviating knee pain (8), the weak electricity used in the EA group for blinding purposes may partly account for the response rate (60.3%) being less than the expected 70%. The difference between EA and SA would be much larger in clinical practice.

Additionally, hard acupuncture might be more suitable for acute diseases and is also used outside China, i.e., motion-style acupuncture (1,9). Frequent treatment does add to the logistics burden in chronic diseases. The noninvasive acupuncture stimulator, which can be manipulated by patients at home, may be an alternative option for chronic diseases. In the modern physiologic-psychosocial medical model, medical decisions should be made by patients and doctors after consultation based on current evidence. It is still an interesting issue to research which kinds of disease are suitable for treatment with hard acupuncture and which are suitable for treatment with soft acupuncture.

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COVID-19 reinfection in a patient receiving immuno suppressive treatment for antineutrophil cytoplasmic antibody-associated vasculitis

To the Editor:

We recently saw a patient who presented with coronavirus disease 2019 (COVID-19) and, during hospitalization, was diagnosed as having granulomatosis with polyangiitis (GPA), an anti-neutrophil cytoplasmic antibody (ANCA)-associated vasculitis, which was likely present prior to COVID-19 infection. Immunosuppressive treatment for GPA may have affected her subsequent medical course, described below, which included another episode of COVID-19.

The patient, a 61-year-old woman, presented in early April 2020, during the first peak of the COVID-19 pandemic, with...
acute-onset dry cough, dyspnea, fever, and myalgia. Findings of initial laboratory tests were suggestive of COVID-19 (neutrophil:lymphocyte ratio 10.3, platelet count $517 \times 10^9/l$, C-reactive protein [CRP] 236 mg/liter, d-dimer 5,794 µg/liter, ferritin 528 µg/liter, troponin 881 ng/liter), and infection was confirmed by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) polymerase chain reaction (PCR) testing of a nasopharyngeal swab. She received supportive care for COVID-19, and the fever and myalgia gradually resolved over the following 14 days.

During this period, she developed progressive kidney dysfunction with urinary abnormalities (serum creatinine level increasing to 210 µmoles/liter [2.38 mg/dl] and urinary protein:creatinine ratio 132 mg/m mole), prompting immunologic testing. This revealed proteinase 3–ANCA at a titer of 141 IU/ml (normal <3). Further assessment revealed a history of ear, nose, and throat symptoms (nasal discharge, hearing loss) and weight loss over the preceding 6 months. Cross-sectional imaging showed erosive sinusitis and bilateral pulmonary nodules. Kidney biopsy revealed severe pauci-immune necrotizing glomerulonephritis, compatible with acute infection (CRP 74 mg/liter, C-reagent protein 528 µg/liter, troponin 881 ng/liter), and was discharged after 10 days. Results of repeat PCR and serologic testing for SARS-CoV-2 antibody were both negative 1 month following the second COVID-19 illness. Of note, peripheral B cell depletion persisted (CD19 <2/µl) following rituximab therapy in April, although total IgG levels were preserved (5.8 gm/liter).

The 6-month interval between symptomatic COVID-19 illnesses, with repeated negative results on PCR testing between episodes, suggests reinfection with SARS-CoV-2; however, we cannot definitively exclude persistent viral replication in this immunocompromised patient. The case highlights that patients receiving immunosuppression treatment may develop viral reinfection or persistence (1,2). This is important as previous reports on immunocompetent individuals suggest that the disease course may be more severe after reinfection (3,4). Our experience also suggests that immunosuppression may impact the longevity of protective immune responses to SARS-CoV-2 infection. This may have important implications for vaccine efficacy in these at-risk patients, who are likely to be prioritized for immunization in the near future. We plan to delay further maintenance immunosuppression treatment in this patient to provide an opportunity for vaccination.

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Kavita Gulati, MB, BCh, BAO, BSc (Hons) 1
Maria Prendecki, MBBS, PhD
Candice Clarke, MBBS
Michelle Willicombe, MBBS, MD
Stephen McAdoo, MBBS, PhD 1
Imperial College London
Imperial College NHS Trust
London, UK

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