Re: Addressing Post-COVID Symptoms: A Guide for Primary Care

To the Editor: In "Addressing Post-COVID Symptoms: A Guide for Primary Care Physicians"[1], the authors present an excellent post-COVID management tool to use as a quick reference and guide for the initial workup and therapeutic support of patients. Indeed, long COVID is a multi-system disease, sometimes occurring after a relatively mild illness. It encompasses distinct clusters of heterogeneous symptoms that can overlap and evolve over time and are sometimes difficult to relate to COVID-19.

Between July 2021 and February 2022, clinical symptoms of 34 cases (mean age 40; 25 women) of long COVID have been met in Family Practice (Belgium) and described in a clinical research report.[2] The combination of previously unknown irrepressible fatigue, exhaustion on exertion, brain fog, memory impairment with anomia, sometimes anosmia or other multiple symptoms are characteristic of long COVID. The high number of women in this study sug gests a type of autoimmune disease. All but 2 patients have been vaccinated before becoming ill.

The combination of symptoms in those patients suggested a neuronal impairment. A hypo-metabolism of certain brain areas in some long COVID with a strong neurological component had already been demonstrated.[3] Brain single-photon emission computed tomography (SPECT) is cheaper and more accessible in primary care. Brain SPECT has been used to show a disorder of cerebral blood perfusion in Alzheimer disease or stroke and therefore may help in detecting cerebral problem in long COVID.

The fourteen patients for whom a brain SPECT was requested had signs of brain impairment including 3 or more of the following symptoms; unexpected tiredness, effort exhaustion, cognitive problems, brain fog, memory loss, anomia, headache, dysphasia, anosmia, dysgeusia, dysesthesia. Their DUSOI/WONCA severity index was high or maximum and their WONCA COOP charts score was over 20, meaning severe functional loss. Unexpectedly, brain SPECT showed severe alterations in cerebral blood flow in all patients, both cortical and central.

All the lesions observed by brain SPECT are similar to those shown in Figure 1. This supports the hypothesis of a vascular perfusion disorder and localized brain ischemia secondary to a coagulation disorder and/or the presence of auto-antibodies[4] and could guide a therapeutic approach. It should be noted that fatigue and exhaustion during exercise can result from a difficult extraction of oxygen from the lungs, probably due also to vascular flow problem.[5]

In the next step, the patients will benefit of the long COVID program of the COVID Human Genetic Effort (https://www.covidhge.com/), an international consortium aiming to discover the human genetic and immunologic bases of the various clinical forms of SARS-CoV-2 infection and in particular the characteristics of long COVID patient. This will remove the doubt for patients without PCR or with negative PCR for whom the immunologic uncertainty (14/34 cases in this series) can have psychological, medico-legal and clinical consequences.

Vascular encephalopathy has been demonstrated in each patient and supports the hypothesis of a persistent coagulation disorder in long COVID. It is necessary to test the reproducibility of this description, conducted on a small number of patient. Nevertheless family doctors have considerable collective resources in epidemiologic research and must act now.[6]

Marc Jamoulle, MD, PhD
Department of General Practice
University of Liege, Belgium
marc.jamoulle@uliege.be

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Ethics statement: The patient has expressly agreed in writing to the use of her personal data in an anonymous manner. The ethics committee of the University Hospital of Liege, Belgium, gave its full approval to this study (No. 2022/23).

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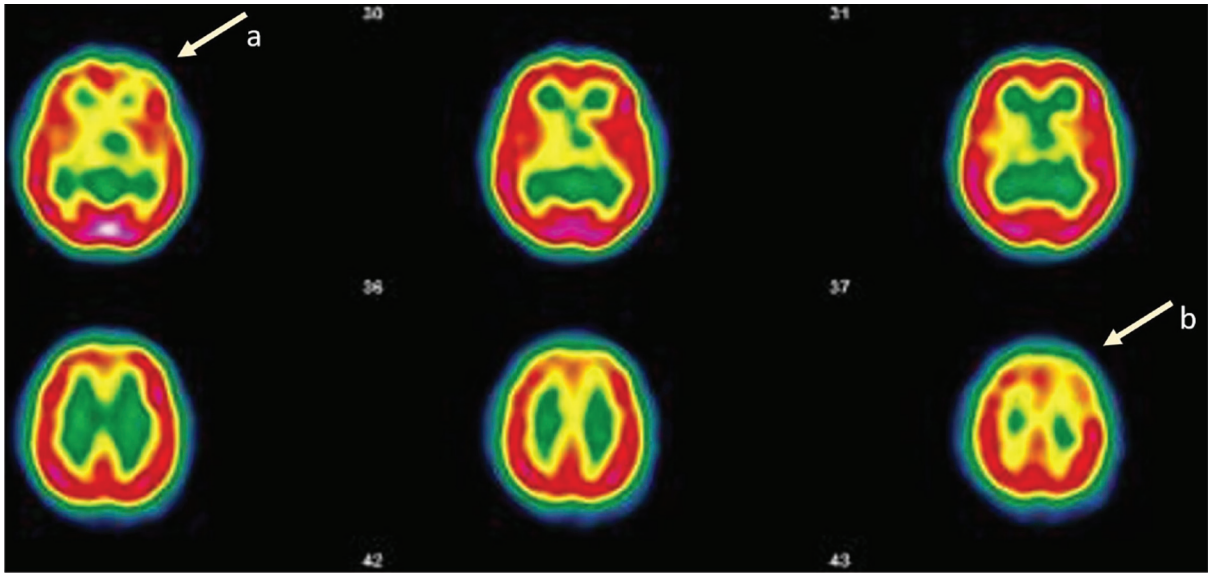
Figure 1. Patient MB, F, 48. long COVID since 9 months with brain fog, abnormal dreams, delusion, depressive feeling, irrepressible fatigue, effort exhaustion. The brain SPECT shows an hypofixation of the tracer in left cortico-frontal (a) and left fronto-parietal (b) areas. (Courtesy Drs Bouazza & Mahy, Vesale hospital, ISPPC, Belgium)



Re: Diversity of Department Chairs in Family Medicine at US Medical Schools

In response to Xierali et al: Family Medicine department chair diversity

To the Editor: We applaud the work of Xierali et al in the recent article demonstrating Family Medicine department chairs were more diverse than any other clinical specialty and not only that, were comparable with the United States population.[1] These findings are quite encouraging particularly for Family Medicine leadership. We should be encouraged, but we also need to acknowledge other confirmations that come from this important work.

As we continue to promote equity for faculty who are underrepresented in medicine, addressing historic injustice and systemic racism have defined themselves as part of our work.[2] Bias and racism are what led to the thinking that underrepresented minority physicians, particular Black physicians, should be sanitation doctors to keep diseases or conditions from crossing racial lines and impacting White people.[3,4] Not only did this bias promote the closing of several historically Black medical schools, but it also promoted underrepresented minority physicians as clinicians who only provide patient care. That is 1 reason underrepresented minority physicians are in lower ranks in academic medicine than our White counterparts.[5] Historically, the institution of medicine never intended for underrepresented minority physicians to be physician scientists or scholars. Even though we are excited to say we've changed that narrative, there is still much work to be done. Given the historic design of the system, it is no surprise that there is more diversity in Family Medicine department chairs than other specialties. Let us not let Family Medicine be a clinician only profession for any faculty, especially underrepresented minority faculty for the benefit of our communities. Let us promote scholarship, leadership and research in our departments of Family Medicine.[6]

Quratulanne Jan, MD
and Kendall M. Campbell, MD
Department of Family Medicine
University of Texas Medical Branch
Galveston, Texas
kemcampb@utmb.edu

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The original authors declined to respond, but would like to thank these authors for acknowledging their work.

Re: Blood Pressure Checks for Diagnosing Hypertension: Health Professionals' Knowledge, Beliefs, and Practice

To the Editor: We have read with great interest the latest work done by Beverly B. Green et al.[1] This study found health care professional knowledge, beliefs, and practices gaps in diagnosing hypertension. These gaps could lead to clinical care that is not aligned with guidelines. Both American and European scientific societies recommend out-of-office blood pressure (BP) measurement before making a new hypertension diagnosis and initiating treatment, using 24-hour Ambulatory Blood Pressure Monitoring (ABPM) or home BP monitoring. However, this approach is not common.

The study[1] shows how important BP measurement is because it is an essential clinical skill, and adequate knowledge is necessary for health professionals.[2]

In our study,[3] conducted in Spain, in contrast to present study, a majority of health professionals (72%) were able to correctly identify ABPM diagnostic thresholds, with this increasing to 96.6% after a 2-hour training workshop. ABPM is widely used in Spain. In this sense, we want to highlight the importance of ABPM. In our country, it is mainly the nursing staff who monitor hypertensive patients.[4]

This diagnostic test is crucial to know the values of BP at night. In addition, a correct reading and interpretation of the ABPM can reveal the nocturnal pattern of blood pressure (dipper, nondipper, riser). In addition, together with HMBP (Home Blood Pressure Monitoring), it allows the possibility of detecting white coat hypertension, masked hypertension, or therapeutic noncompliance.

Among the different BP measurements, we stress the importance of being aware of the ambulatory values provided by ABPM, both for an adequate diagnosis and for follow-up.[5] Knowing the circadian variation of BP,[6] as well as the value of nocturnal BP that has shown for years a prognostic value,[7] can only be done through ABPM.

Second, the effectiveness of the training action and, therefore, the acquisition of knowledge and its implementation with a validated tool[3] should be evaluated periodically. In this sense, it is essential to have a questionnaire that will allow us to compare different teaching actions.

Aida Ovejas López, MD
Ester Pallarés Sanz, MD
and Artur Dalfó Pibernat, RN, MsC, PhD,
Catalan Health Institute
Primary Care Center Horta
adpibernat@gmail.com

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Response: Re: Blood Pressure Checks for Diagnosing Hypertension: Health Professionals' Knowledge, Beliefs, and Practice

To the Editor: This letter to the editor in response to our article "Blood Pressure Checks for Diagnosing Hypertension: Health Professionals' Knowledge, Beliefs, and Practice" was of great interest to us.

The authors of this letter conducted a quasi-experimental study where nurse and physician knowledge of ambulatory blood pressure monitoring (ABPM) was measured pre and post a training intervention.[1] Knowledge was low pre training, with substantial improvement post training. The study took place in Spain, a country where ABPM is more commonly performed than the US. The training session took place at a conference on hypertension, and the nurses and physicians that attended may have not been representative of nurses and physicians working in typical primary care clinics. Furthermore in the US, medical assistants are much more common part of the workforce in primary care than nurses. Medical assistants receive less training than nurses.

Nonetheless, the training intervention was successful, demonstrating that it is possible to improve BP measurement and hypertension diagnostic knowledge, at least in regard to ABPM. Our study in the US[2,3] and a recent study from Canada[4] showed that new strategies are also needed for improving health professionals' clinic BP and

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home BP knowledge and practices in addition to ABPM. Future studies should test the effectiveness of programs similar to that described by the author of the letter in larger and real world clinical settings, and determine whether increased knowledge leads to improved BP practices that are durable over time.

Melissa L. Anderson, MS
Kelly Ehrlich, MS
Yoshio N. Hall, MD, MS
Laurel D. Hansell, MA, MPH
Clarissa Hsu, PhD
Dwayne Joseph
Karen L. Margolis, MD, MPH
Jennifer B. McClure, PhD
Sean A. Munson, PhD
Mathew J. Thompson, MBChB, MPH, DPhil
and Beverly B. Green, MD, MPH
Kaiser Permanente Washington and
Kaiser Permanente Washington
Health Research Institute
Bev.B.Green@kp.org

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