

Letters to the Editor

Mild Creatine Kinase Elevations Do Not Necessarily Reflect Rhabdomyolysis

Original Article: Case Reports: Rhabdomyolysis Associated with COVID-19 [Letters to the Editor]

Issue Date: December 1, 2020

See additional reader comments at: <https://www.aafp.org/afp/2020/1201/p645a.html>

To the Editor: We read with interest the case report by Dr. Singh and colleagues about 10 patients with SARS-CoV-2 infection who developed rhabdomyolysis after the onset of COVID-19. The authors concluded that clinicians should be aware of this life-threatening manifestation of COVID-19 so that prompt and appropriate interventions can be performed.

Having hyperCKemia, which is the elevation of creatine kinase (CK) found in the patients in the case series, does not necessarily reflect rhabdomyolysis in the absence of muscle symptoms. Only three out of 10 patients had myalgias, and only one presented with weakness; it is unclear if it was muscle weakness or generalized fatigue. Nine patients presented with coughing; therefore, it is more likely that the hyperCKemia resulted from overactivity of respiratory muscles than from myositis. HyperCKemia was mild (non-life-threatening), with maximal CK values of less than 10,000 U per L (167.00 μ kat per L) in eight patients. Helpful information that would suggest that hyperCKemia originated from skeletal muscles includes the presence of dark (cola-like) urine and myoglobinuria. One patient presented with confusion, and it is crucial to exclude a cerebral cause of hyperCKemia for that patient. COVID-19 can also be complicated by myocarditis, myocardial damage, including myocardial infarction and takotsubo cardiomyopathy, which may have been a source of hyperCKemia.¹

Did rhabdomyolysis occur before, together with, or after SARS-CoV-2 infection in the patients? If hyperCKemia occurred before

COVID-19, then trauma, epilepsy, tetany, hypokalemia, and compartment syndrome could have been contributing causes.

Several of the drugs commonly used to treat COVID-19 can be myotoxic; therefore, it is crucial to know which drugs the patient received before the onset of rhabdomyolysis. Chloroquine can induce myopathy.² Azithromycin (Zithromax) can trigger rhabdomyolysis.³ Ritonavir may rarely trigger rhabdomyolysis.⁴

The authors stated that COVID-19 might be associated with life-threatening complications. Eight of the 10 patients died, but what were the causes of death? Did any of the patients die from complications of rhabdomyolysis? The limitations of this interesting case series should be addressed before accepting the authors' conclusions.

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References

1. Gauchotte G, Venard V, Segondy M, et al. SARS-CoV-2 fulminant myocarditis: an autopsy and histopathological case study. *Int J Legal Med*. 2021;135(2):577-581.
2. Shukla S, Gultekin SH, Saporta M. Pearls & Oy-sters: hydroxychloroquine-induced toxic myopathy mimics Pompe disease: critical role of genetic test. *Neurology*. 2019;92(7):e742-e745.
3. Teng C, Baus C, Wilson JP, et al. Rhabdomyolysis associations with antibiotics: a pharmacovigilance study of the FDA adverse event reporting system. *Int J Med Sci*. 2019; 16(11):1504-1509.
4. Benveniste O, Longuet P, Duval X, et al. Two episodes of acute renal failure, rhabdomyolysis, and severe hepatitis in an AIDS patient successively treated with ritonavir and indinavir. *Clin Infect Dis*. 1999;28(5):1180-1181.

In Reply: We appreciate the comments by Drs. Finsterer and Scorza. The classic triad of rhabdomyolysis symptoms (muscular aches, weakness, and tea-colored urine) is nonspecific and experienced by less than 10% of patients. More than 50% of patients do not complain of muscle pain or weakness.^{1,2} Plasma myoglobin is not as sensitive as CK for diagnosis because of a short half-life. Rhabdomyolysis does not always lead to visible myoglobinuria (tea- or cola-colored urine) or may resolve early in the course of rhabdomyolysis.^{1,2} A systematic review found that in most studies, patients were diagnosed with

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This series is coordinated by Kenny Lin, MD, MPH, deputy editor.

rhabdomyolysis based on CK levels five times the upper limit of normal (greater than 1,000 U per L [16.70 μ kat per L]).^{1,3} In our case series, the urinalysis obtained at presentation in three patients (cases 4, 5, and 6) showed classic rhabdomyolysis urinalysis findings (moderate blood and 0 to 3 red blood cells [RBCs] per high-power field). One patient (case 10) showed large blood and 4 to 5 RBCs per high-power field. In the other six patients, urinalysis was not obtained or did not show evidence of rhabdomyolysis.

The troponin level obtained at presentation was essentially negative (less than 0.09 ng per mL [0.09 mcg per L]) in all the patients except for case 10, whose troponin level was 0.4 ng per mL (0.4 mcg per L; reference range of less than 0.03 ng per mL [0.03 mcg per L]). In all the patients, CK level was obtained at presentation to the hospital, suggesting a temporal relationship between COVID-19 and rhabdomyolysis. None of the patients had a history of or presented with alcohol or substance misuse, trauma, or exertion. Case 4 had a known history of seizures and was taking antiseizure medications. Only one patient (case 6) had hypokalemia (serum potassium level of 3.1 mEq per L [3.1 mmol per L]) at presentation. None of the patients were taking any of the medications (statins, macrolides) known to cause muscle damage. The patients received chloroquine and azithromycin during their hospitalization for treatment of COVID-19; however, CK levels were already elevated at presentation. A range of potentially life-threatening complications (e.g., acute kidney injury, compartment syndrome, electrolyte imbalance, disseminated intravascular coagulation) have been associated with rhabdomyolysis.² Further studies are needed for the prognostic value of elevated CK in patients with COVID-19.

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References

1. Khan FY. Rhabdomyolysis: a review of the literature. *Neth J Med*. 2009;67(9):272-283.
2. Torres PA, Helmstetter JA, Kaye AM, et al. Rhabdomyolysis: pathogenesis, diagnosis, and treatment. *Ochsner J*. 2015;15(1):58-69.
3. Chavez LO, Leon M, Einav S, et al. Beyond muscle destruction: a systematic review of rhabdomyolysis for clinical practice. *Crit Care*. 2016;20(1):135.

The Role of Weight Stigma in the Development of Eating Disorders

Original Article: Eating Disorders in Primary Care: Diagnosis and Management

Issue Date: January 1, 2021

Available at: <https://www.aafp.org/afp/2021/0101/p22.html>

To the Editor: We want to thank Dr. Klein and colleagues for their article highlighting the crucial role that family physicians play in the early identification of eating disorders.

The authors did not discuss the effect of weight stigma on the development of eating disorders.¹ One of the strongest risk factors for the development of an eating disorder is previous weight loss attempts.^{2,3} For patients who are not already struggling with an eating disorder, encouragement from a physician to pursue weight loss without careful consideration could contribute to the development of disordered behaviors, including bingeing, restriction, and purging. Therefore, when patients present to a primary care clinic with the goal of weight loss, screening for disordered eating thoughts or behaviors should be a top priority. Increasing physician awareness of the risks associated with recommending weight loss or dieting to patients is crucial.

The authors emphasized the importance of objective data (i.e., body mass index [BMI]) over validated screening tools (i.e., SCOFF questionnaire), citing concerns about self-report bias on survey instruments. Unfortunately, an overreliance on BMI is likely to result in physicians failing to detect the occurrence of eating disorders in patients with larger bodies. Evidence suggests that the higher a person's BMI, the greater the likelihood that they meet the criteria for an eating disorder.^{4,5} For this reason, a screening process that relies heavily on BMI is likely to miss the bulk of individuals in a primary care setting who would benefit the most from early identification and intervention. Further, clinicians often praise patients with larger bodies for behaviors (e.g., calorie counting) and mindsets (e.g., a goal weight) that would be considered problematic for other people. Diagnostic criteria for eating disorders that use BMI in the definition can be explicitly harmful to people with larger bodies, delaying diagnosis and treatment and inadvertently supporting symptomatic behaviors.

Family physicians have an essential role in the prevention and treatment of eating disorders and

sub-diagnostic disordered eating behaviors. Physicians must also be aware of the role they could play in the development of eating disorders and consider incorporating evidence-based practices such as weight-neutral health promotion counseling.⁶

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References

1. Puhl RM, Brownell KD. Confronting and coping with weight stigma: an investigation of overweight and obese adults. *Obesity (Silver Spring)*. 2006;14(10):1802-1815.
2. Stice E. Risk and maintenance factors for eating pathology: a meta-analytic review. *Psychol Bull*. 2002;128(5):825-848.
3. Stice E, Rohde P, Shaw H, et al. Weight suppression increases odds for future onset of anorexia nervosa, bulimia nervosa, and purging disorder, but not binge eating disorder. *Am J Clin Nutr*. 2020;112(4):941-947.
4. Duncan AE, Ziobrowski HN, Nicol G. The prevalence of past 12-month and lifetime DSM-IV eating disorders by BMI category in US men and women. *Eur Eat Disord Rev*. 2017;25(3):165-171.
5. Udo T, Grilo CM. Prevalence and correlates of DSM-5–defined eating disorders in a nationally representative sample of U.S. adults. *Biol Psychiatry*. 2018;84(5):345-354.
6. Mensinger JL, Calogero RM, Stranges S, et al. A weight-neutral versus weight-loss approach for health promotion in women with high BMI: a randomized-controlled trial. *Appetite*. 2016;105:364-374.

In Reply: We appreciate the comments from Dr. Westby and colleagues regarding two critically important concepts in the care of persons at risk of or diagnosed with eating disorders.

We agree that weight stigma is a critical risk factor for the onset and maintenance of eating pathology,¹ and that dieting attempts increase the risk of eating disorders.² Notably, weight stigma has been associated with increased vulnerability to maladaptive eating during the COVID-19 pandemic.³ Although a comprehensive exploration of the etiologic role of weight stigma in eating disorders was beyond the scope of our article, we advised clinicians to assess and confront weight stigma and discussed how praise for weight loss might result in or reinforce eating pathology. We also dedicated the final section to prevention (e.g., avoiding stigmatizing language, promoting acceptance of larger body sizes, emphasizing health instead of weight or appearance-related goals).

Dr. Westby and colleagues raise essential points about the prevalence of eating pathology in individuals with larger bodies, which clinicians may fail to assess or detect. We also highlighted the importance of analyzing anthropometric trends and percentile changes, ideally in graphic form, instead of absolute measurements.

Objective data alone without psychosocial history taking (e.g., through clinical interview, screening tools) can miss important diagnoses. However, the sensitivity of screening tools such as the SCOFF questionnaire varies across populations,⁴ and assessments of disordered eating may not be universally feasible or prioritized across clinical settings and visit types. Therefore, following the American Academy of Pediatrics' recent clinical report on eating disorders, we advocate for multifaceted assessment approaches that can be effectively implemented.⁵

The U.S. Preventive Services Task Force is currently assessing techniques and outcomes of screening for eating disorders in primary care settings.⁶ Until further data are available, we conclude that during clinical encounters, history should be corroborated when possible, objective findings systematically reviewed, and screening tools interpreted in context.

Primary care clinicians are on the front lines in promoting health, positive body image, and quality of life. Therefore, clinicians must be mindful of weight bias and associated distress, and harmful weight control behaviors.^{1,2} Clinical recommendations, particularly for individuals with disordered eating, body image concerns, high body weight, or weight loss attempts, must be articulated with sensitivity and precision. Additional resources about addressing weight bias can be found at <https://www.obesityaction.org/action-through-advocacy/weight-bias/>. We are grateful that the importance of nonstigmatizing, size-inclusive approaches is being highlighted in *American Family Physician*.

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the official views of the Uniformed Services University of the Health Sciences; the Departments of the Air Force, Army, Navy, or the U.S. military at large; the Department of Defense; or the U.S. government.

References

1. Puhl RM, Himmelstein MS, Pearl RL. Weight stigma as a psychosocial contributor to obesity. *Am Psychol*. 2020; 75(2):274-289.
2. Stice E, Rohde P, Shaw H, et al. Weight suppression increases odds for future onset of anorexia nervosa, bulimia nervosa, and purging disorder, but not binge eating disorder. *Am J Clin Nutr*. 2020;112(4):941-947.
3. Puhl RM, Lessard LM, Larson N, et al. Weight stigma as a predictor of distress and maladaptive eating behaviors during COVID-19: longitudinal findings from the EAT study. *Ann Behav Med*. 2020;54(10):738-746.
4. Solmi F, Hatch SL, Hotopf M, et al. Validation of the SCOFF questionnaire for eating disorders in a multiethnic general population sample. *Int J Eat Disord*. 2015;48(3):312-316.
5. Hornberger LL, Lane MA; Committee on Adolescence. Identification and management of eating disorders in children and adolescents. *Pediatrics*. 2021;147(1):e2020040279.
6. U.S. Preventive Services Task Force. Screening for eating disorders in adolescents and adults. June 25, 2020. Accessed February 22, 2021. <https://www.uspreventiveservicestaskforce.org/uspstf/document/draft-research-plan/screening-eating-disorders-adolescents-adults>

Additional Differential Diagnosis for Adult Hip Pain

Original Article: Hip Pain in Adults: Evaluation and Differential Diagnosis

Issue Date: January 15, 2021

See additional reader comments at: <https://www.aafp.org/afp/2021/0115/p81.html>

To the Editor: We applaud Dr. Chamberlain for the outstanding review of the evaluation and differential diagnosis of hip pain. We have found that many family medicine residents are uncomfortable with the evaluation and examination of hip pathology. Dr. Chamberlain did an excellent job delineating anatomic locations, dynamic testing, and considerations for anterior, lateral, and posterior hip locations. We suggest that lateral femoral cutaneous nerve entrapment (i.e., meralgia paresthetica) be included in the differential diagnosis.¹ Lateral femoral cutaneous nerve entrapment is a common clinical entity that presents as hip pain. It is treatable if physicians are familiar with lateral femoral cutaneous nerve anatomy and ultrasound location. This injury is amenable to nerve hydrodissection guided by point-of-care ultrasonography because it courses over the proximal sartorius muscle. Corticosteroids and

dextrose prolotherapy have been successfully used for years to avoid surgical management. Most patients are treated successfully with one or two injections.²

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Editor's Note: This letter was sent to the author of "Hip Pain in Adults: Evaluation and Differential Diagnosis," who declined to reply.

References

1. Haim A, Pritsch T, Ben-Galim P, et al. Meralgia paresthetica: a retrospective analysis of 79 patients evaluated and treated according to a standard algorithm. *Acta Orthop*. 2006;77(3):482-486.
2. Tagliafina A, Serafini G, Lacelli F, et al. Ultrasound-guided treatment of meralgia paresthetica (lateral femoral cutaneous neuropathy): technical description and results of treatment in 20 consecutive patients. *J Ultrasound Med*. 2011;30(10):1341-1346.

Well-Woman Chart Is Useful in Guiding Preventive Care

Original Article: Health Maintenance for Women of Reproductive Age

Issue Date: February 15, 2021

See additional reader comments at: <https://www.aafp.org/afp/2021/0215/p209.html>

To the Editor: The article by Dr. Paladine and colleagues included recommendations from the U.S. Preventive Services Task Force (USPSTF) and other groups but did not include recommendations issued by the Women's Preventive Services Initiative (WPSI).¹ The WPSI recommendations are incorporated as covered benefits for preventive services without cost-sharing under the Affordable Care Act.² New recommendations on screening for anxiety³ and urinary incontinence,⁴ and previous recommendations on contraceptive care, breastfeeding, and other services,² were not mentioned. The section on contraception, which focuses primarily on the U.S. Medical Eligibility Criteria for Contraceptive Use, does not include the WPSI recommendation that "women have access to the full range of female-controlled contraceptives to prevent unintended pregnancy and improve birth outcomes." Family physicians may find the WPSI Well-Woman Chart useful in guiding preventive care in their practices (<https://www.womenspreventivehealth.org>).

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org/wellwomanchart/).⁵ The Well-Woman Chart is a free resource and clinical guide that outlines preventive services recommended by the WPSI, USPSTF, and Bright Futures. The chart is based on patient age, health status, and risk factors. Information in the chart is updated when new and revised recommendations are issued. The WPSI recommendations and Well-Woman Chart information should be included in future summaries of preventive service recommendations for women to provide a more comprehensive reference for family physicians.

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Editor's Note: This letter was submitted on behalf of the Women's Preventive Services Initiative, Advisory Panel.

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References

1. Women's Preventive Services Initiative. Accessed March 2, 2021. <https://www.womenspreventivehealth.org>
2. HealthCare.gov. Preventive care benefits for women. Accessed March 2, 2021. <https://www.healthcare.gov/preventive-care-women/>
3. Gregory KD, Chelmow D, Nelson HD, et al.; Women's Preventive Services Initiative. Screening for anxiety in adolescent and adult women: a recommendation from the Women's Preventive Services Initiative. *Ann Intern Med*. 2020;173(1):48-56.
4. O'Reilly N, Nelson HD, Conry JM, et al.; Women's Preventive Services Initiative. Screening for urinary incontinence in women: a recommendation from the Women's Preventive Services Initiative [published correction appears in *Ann Intern Med*. 2019;171(5):388]. *Ann Intern Med*. 2018;169(5):320-328.
5. Phipps MG, Son S, Zahn C, et al.; Women's Preventive Services Initiative. Women's Preventive Services Initiative's Well-Woman Chart: a summary of preventive health recommendations for women. *Obstet Gynecol*. 2019;134(3):465-469.

In Reply: We thank Drs. Cantor and Nelson for highlighting the recommendations from the WPSI. Unfortunately, recommendations from all groups could not be included in our article because of space constraints, and we chose to focus on American Academy of Family Physicians (AAFP) and USPSTF recommendations. Readers should note that many of the WPSI recommendations differ from the A and B ratings used by the USPSTF.

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Editor's Note: Drs. Cantor and Nelson note the importance for family physicians to know that the clinical preventive services recommendations from WPSI are legislatively mandated to be covered by private insurance plans without cost-sharing (as with grade A and B recommendations from the USPSTF). However, unlike recommendations from the USPSTF and AAFP, the WPSI recommendations are not consistently evidence based. For example, the systematic review performed to support the WPSI recommendation to screen women annually for urinary incontinence concluded that "evidence is insufficient on the overall effectiveness and harms of screening for urinary incontinence in women."¹ Similarly, the systematic review performed to support the WPSI recommendation to screen adolescent girls and adult women concluded that "evidence on the overall effectiveness and harms of screening for anxiety is insufficient."² Although the WPSI recommendation on breast cancer screening for women who are at average risk aligns with the USPSTF's age range to begin screening (between 40 and 50 years based on shared decision-making), the WPSI diverged from the USPSTF by endorsing annual and biennial screening mammography.^{3,4} Readers should be aware that although the AAFP participates in WPSI, such participation does not constitute an endorsement of individual WPSI recommendations or its Well-Woman Chart.—Kenny Lin, MD, MPH, Deputy Editor

References

1. Nelson HD, Cantor A, Pappas M, et al. Screening for urinary incontinence in women: a systematic review for the Women's Preventive Services Initiative. *Ann Intern Med*. 2018;169(5):311-319.
2. Nelson HD, Cantor A, Pappas M, et al. Screening for anxiety in adolescent and adult women: a systematic review for the Women's Preventive Services Initiative. *Ann Intern Med*. 2020;173(1):29-41.
3. Women's Preventive Services Initiative. Breast cancer screening for average-risk women. Accessed April 21, 2021. <https://www.womenspreventivehealth.org/recommendations/breast-cancer-screening-for-average-risk-women/>
4. U.S. Preventive Services Task Force. Final recommendation statement. Breast cancer: screening. January 11, 2016. Accessed April 21, 2021. <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/breast-cancer-screening> ■