

On the wide field of clinical cachexia, sarcopenia and muscle research

Tobias Daniel Trippel^{1,2}, Nicole Ebner^{3,4}, Goran Loncar^{5,6}, Stephan von Haehling^{3,4*}

1 Charité - Universitätsmedizin Berlin, Campus Virchow-Klinikum, Department of Internal Medicine and Cardiology, Augustenburger Platz 1, 13353 Berlin, Germany; **2** DZHK (German Centre for Cardiovascular Research), Partner Site Berlin, Germany; **3** University of Göttingen Medical Centre, Department of Cardiology and Pneumology, Robert Koch Straße 40, 37099 Göttingen, Germany; **4** DZHK (German Centre for Cardiovascular Research), Partner Site Göttingen, Germany; **5** Cardiology Department, Zvezdara University Medical Center, Belgrade, Serbia; **6** Faculty of Medicine, University of Belgrade, Belgrade, Serbia

***Corresponding Author** Stephan von Haehling, MD PhD, University of Göttingen Medical Centre, Department of Cardiology and Pneumology, Robert Koch Straße 40, 37099 Göttingen, Germany, Phone: +49 (0) 551 39 0, Email: stephan.von.haehling@med.uni-goettingen.de

In his best-known novel *Effi Briest*, the Berlin (Germany) based apothecary and realist writer Theodor Fontane (1819 to 1898), introduced the dictum '*Ein weites Feld*'. "A wide field", or in concrete categories "a large topic", is a catchy phrase nowadays used with pleasure by academics when an issue is commonly understood as too large for consideration. The past months have brought an interesting array of international submissions ranging from prognostic implications of body mass index and tissue loss in cancer to chronic kidney disease to this journal. Manuscripts on imaging or biomarkers aspects, among others, draw a heterogeneous picture of clinical reports in the field. Yet, upon completion of JCSM Clinical Reports' Issue 1, Volume 2 we are delighted to display the rapid progress this editorial project takes on the large topic of cachexia, sarcopenia and muscle research. Coherently, we follow our stringent editorial path and hope to consider and integrate "a wide field" from a clinical point of view.

Indeed, putting the patient center stage, we introduced this novel journal in the aftermath of the 9th annual, international conference on cachexia, sarcopenia and muscle wasting held December 10th to 11th 2016 in Berlin, Germany (1). The editorial team since opened this

journal for manuscripts following a strict code of conduct and thoughtful ethical guidelines for publishing (2).

In the past issue, *O'Driscoll et al* described an inverse association of BMI and status of chronic kidney disease (CKD) in 211 consecutive non-dialysis CKD patients from the United Kingdom. In contrast to observations from the general population, overweight and obese CKD patients had a lower adjusted risk of all-cause mortality compared to normal weight CKD patients (3). As indicated earlier, *Aahlin et al* analysed a cohort of 137 patients treated with curative intent for gastric adenocarcinoma in the academic medical centers of Tromsø, Norway and Stockholm, Sweden. Not only did they document a loss in lean tissue during neoadjuvant treatment for gastric adenocarcinoma, but found low preoperative skeletal muscle index to be strongly associated with poorer survival (4).

Imaging and biomarkers approaches have attracted significant attention in the past and current issue. *Patel et al* from Milwaukee, USA have proposed a novel computer tomography method to detect normal from abnormal psoas muscle. They compared an estimation of total psoas muscle cross-sectional area to proportion of normal to abnormal psoas muscle at the third lumbar

(L3) level and found their technique capable of identifying sarcopenic obesity (5). Alanine transaminase, as an easy-to-obtain and potentially ready-to-use biomarker, has been associated with sarcopenia, frailty and shortened survival in different patient populations. This led *Dagan et al* from Tel Aviv, Israel to focus their investigation on the prognostic implications of ALT levels in 203 Lung cancer patients. Interestingly, low ALT levels were not found to be associated with increased risk of mortality (6).

In the current issue 2, a consortium of Japanese investigators for the Working Group on Sarcopenic Dysphagia, reports on sarcopenic dysphagia, a clinical picture characterized by difficulty swallowing due to loss

of whole-body skeletal and swallowing muscle mass and function. *Mori et al* assessed swallowing muscle strength by tongue pressure and reported on the development, reliability, and validity of a diagnostic algorithm for sarcopenic dysphagia (7). This interesting read addresses an important, yet little acknowledged functional limitation.

From a clinical perspective, 'a wide field' of aspects covered. If one considers the widespread geographical origin of research from the Americas, the Middle East, Asia and Europe published in JCSM Clinical Reports, the field may become even broader. We hope you enjoy reading.

References:

1. Trippel TD, Ebner N, von Haehling S. The patient above all else: Introducing JCSM Clinical Reports A legitimate crown princess, daughter of the Journal of Cachexia, Sarcopenia and Muscle. *Journal of Cachexia, Sarcopenia and Muscle - Clinical Reports*. 2016;1(1);e00015.
2. von Haehling S, Ebner N, Morley JE, Coats AJ, Anker SD. Ethical Guidelines for Publishing in the Journal of Cachexia, Sarcopenia and Muscle Clinical Reports. *Journal of Cachexia, Sarcopenia and Muscle - Clinical Reports*. 2016;1(1);e00028.
3. O'Driscoll JM, Slee AD, Rajan Sharma R. Body mass index mortality paradox in chronic kidney disease patients with suspected cardiac chest pain. *Journal of Cachexia, Sarcopenia and Muscle - Clinical Reports*. 2017;2(1); e00010.
4. Aahlin EK, Irino T, Johns N, Brismar T, Nilsson M, Revhaug A, Lassen K. Body composition indices and tissue loss in patients with resectable gastric adenocarcinoma. *Journal of Cachexia, Sarcopenia and Muscle - Clinical Reports*. 2017;2(1); e00013.
5. Patel J, Baruah D, Shahir K. A novel computed tomography method to detect normal from abnormal psoas muscle: a pilot feasibility study. *Journal of Cachexia, Sarcopenia and Muscle - Clinical Reports*. 2017;2(1); e00014.
6. Dagan A, Sella T, Urban D, Bar Y, Onn A, Segal G. Low alanine transaminase is not associated with increased rate of mortality in patients with advanced lung cancer. *Journal of Cachexia, Sarcopenia and Muscle - Clinical Reports*. 2017;2(1); e00016.
7. Mori T, Fujishima I, Wakabayashi H, Itoda M, Kunieda K, Kayashita J, Nishioka S, Sonoda A, Kuroda Y, Yamada M, Ogawa S. Development and reliability of a diagnostic algorithm for sarcopenic dysphagia. *Journal of Cachexia, Sarcopenia and Muscle - Clinical Reports*. 2017;2(2); e00010.