Wien Klin Wochenschr (2019) 131:585-586 https://doi.org/10.1007/s00508-019-01581-0

## Wiener klinische Wochenschrift

The Central European Journal of Medicine



## Musculoskeletal medicine: an Austrian perspective part II

Richard Crevenna · Franz Kainberger

© Springer-Verlag GmbH Austria, part of Springer Nature 2019

Musculoskeletal medicine has been described to be one of the most important challenges in multidisciplinary and interdisciplinary healthcare in Europe [1]. The clinical and socioeconomic relevance of problems with the musculoskeletal systems is enormous [1].

In this second musculoskeletal issue of the Wiener klinische Wochenschrift, three Austrian expert groups present very important aspects of musculoskeletal medicine, namely the "Evaluation and validation of diagnostic methods for diagnosis and research in bone healing", the "Concept of modern bionic reconstruction for all levels of upper extremity amputations", and the "Rehabilitation in nontraumatic spinal cord dysfunction due to tumors".

In their study Nemecek et al. aimed to analyze radiographic imaging techniques and to quantify bone ossification in the osteotomy gap after high tibial osteotomy [2, 6]. The authors were able to determine sclerosis and medial width of the osteotomy gap as well as area measurements as reproducible parameters for evaluation of bone healing and to show that quantification of bone ossification can be calculated with computed tomography (CT) scans using a semiautomatic computer program. They therefore recommend these methods for diagnosis and research in bone healing [2, 6].

Loss of an extremity has an enormous impact on a patient's life but extremity function can be restored

Univ. Prof. Dr. R. Crevenna, MBA, MMSc (⋈) Department of Physical Medicine, Rehabilitation and Occupational Medicine, Medical University of Vienna, Waehringer Guertel 18-20, 1090 Vienna, Austria richard.crevenna@meduniwien.ac.at

F. Kainberger

Division of Neuro- and Musculoskeletal Radiology, Department of Biomedical Imaging and Image-Guided Therapy, Medical University of Vienna, Vienna, Austria

and the patient reintegrated into daily life by using special procedures (such as selective nerve transfer, anchoring of prostheses into bone, structured rehabilitation, and modern prosthetic fitting). Aman et al. report the concept and approach for modern bionic reconstruction [4]. The authors mention bionic reconstruction for restoring extremity function which can be considered for all levels of upper extremity amputations. They underline the importance of an interdisciplinary approach to reintegrate patients into daily life [3].

Cancer patients with spinal cord tumors have a need to access specialized rehabilitation units for spinal cord injury to improve functionality, mood, and quality of life. Pataraia and Crevenna describe specific challenges but also opportunities to improve care in the field of rehabilitation in nontraumatic spinal cord dysfunction due to tumors [4].

With their retrospective study, Keilani et al. were able to show that two different surgical techniques for reconstruction after recurrent patella dislocation seem to show equal results with respect to isokinetic knee muscle strength, body composition, selfreported physical performance and pain in male patients [5].

In this second musculoskeletal issue of the Wiener klinische Wochenschrift, we are able to present you with very specific aspects of musculoskeletal medicine. Some of these projects can be seen as so-called lighthouse projects in the field of musculoskeletal medicine. Thanks to all authors and reviewers who made this special edition possible. And once more thanks to the editors of Wiener klinische Wochenschrift for their kind invitation to edit two issues with the main topic "Musculoskeletal Medicine".

Conflict of interest R. Crevenna and F. Kainberger declare that they have no competing interests.



## References

- Crevenna R, Kainberger F. Musculoskeletal medicine: an Austrian perspective part 1. Wien Klin Wochenschr. 2019;131:539–540.
- 2. Nemecek E, Chiari C, Valentinitsch A, Kainberger F, Hobusch G, Kolb A, et al. Analysis and quantification of bone healing after open wedge high tibial osteotomy. Wien Klin Wochenschr. 2019;131. https://doi.org/10.1007/s00508-019-01541-8. Epub ahead of print.
- 3. Aman M, Festin C, Sporer ME, Gstoettner C, Prahm C, Bergmeister KD, et al. Bionic reconstruction: restoration of extremity function with osseointegrated and mind-controlled prostheses. Wien Klin Wochenschr. 2019;131. https://doi.org/10.1007/s00508-019-1518-1. Epub ahead of print.
- Pataraia A, Crevenna R. Challenges in rehabilitation of patients with nontraumatic spinal cord dysfunction due to tumors: a narrative review. Wien Klin Wochenschr. 2019;131.

- $\label{eq:https://doi.org/10.1007/s00508-019-1528-z.} Epub \ ahead \ of print.$
- 5. Keilani M, Palma S, Crevenna R, Gaudart C, Hasenöhrl T, Reschl M, et al. Functional outcome after recurrent patellar dislocation. Comparison of two surgical techniques—Medial patellofemoral ligament reconstruction (MPFL) vs. Elmslie Trillat procedure. Wien Klin Wochenschr. 2019;131. https://doi.org/10.1007/s00508-019-01570-3. Epub ahead of print.
- 6. Nemecek E, Chiari C, Valentinitsch A, Kainberger F, Hobusch G, Kolb A, et al. Correction to: Analysis and quantification of bone healing after open wedge high tibial osteotomy. Wien Klin Wochenschr. 2019;131. https://doi.org/10.1007/s00508-019-01568-x. Epub ahead of print.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

