

On our own behalf

The most-read articles in *HERZ* 2012

HERZ is rewarding the author or team of authors of the most-read articles of 2012 from the publisher's archive Springer Link. There is one award for German authors and one award for international authors.

The most-read article by international authors is the paper "Mechanisms and management of doxorubicin cardiotoxicity" by Y. Shi, M. Moon, S. Dawood, B. McManus, and P.P. Liu. It was published in *HERZ* 2011 (36:296–305) and was downloaded 591 times in 2012.

The most-read article by German authors is the paper "Herzfrequenzvariabilität und Sport: Aktueller Stand (Heart rate variability and physical exercise: Current status)" by K. Hottenrott, O. Hoos, and H.D. Esperer. It was published in *HERZ* 2006 (31:544–52), and was downloaded 583 times in 2012.

The paper by Shi et al. was part of the special issue on cardiotoxicity. As the paper's title suggests, it deals with the mechanisms and management of doxorubicin cardiotoxicity. The effective antitumor agent doxorubicin shows a cumulative dose-dependent cardiotoxicity. In addition to its principal toxic mechanisms involving iron and redox reactions, recent studies have described new mechanisms of doxorubicin-induced cell death, including abnormal protein processing, hyperactivated innate immune responses, inhibition of neuregulin-1 (NRG1)/ErbB(HER) signaling, impaired progenitor cell renewal/cardiac repair, and decreased vasculogenesis. Although multiple mechanisms involved in doxorubicin cardiotoxicity have been studied, there is presently no clinically proven treatment established for doxorubicin cardiomy-

opathy. Iron chelator dexrazoxane, angiotensin-converting enzyme (ACE) inhibitors, and β -blockers have been proposed as potential preventive strategies for doxorubicin cardiotoxicity. Novel approaches such as anti-miR-146 or recombinant NRG1 to increase cardiomyocyte resistance to toxicity may be of interest in the future.

The paper by Hottenrott et al. was part of the special issue on heart and sports. Heart rate variability (HRV) has long been used in risk stratification for sudden cardiac death and diabetic autonomic neuropathy. In recent years, both time and frequency domain indices of HRV also gained increasing interest in sports and training sciences. In these fields, HRV is currently used for the noninvasive assessment of autonomic changes associated with short-term and long-term endurance exercise training in both leisure sports activity and high-performance training. Furthermore, HRV is being investigated as a diagnostic marker of overreaching and overtraining. A large body of evidence shows that, in healthy subjects and cardiovascular patients of all ages (up to 70 years of age), regular aerobic training usually results in a significant improvement of overall as well as instantaneous HRV. These changes, which are accompanied by significant reductions in heart rates both at rest and during submaximal exercise, reflect an increase in autonomic efferent activity and a shift in favor of enhanced vagal modulation of the cardiac rhythm. Regular aerobic training of moderate volume and intensity over a minimum period of 3 months seems to be necessary to ensure these effects, which might be associated with a prognostic benefit regarding overall mortality. At present, the data available do not allow for final conclu-

sions with respect to the usefulness of traditional HRV indices in assessing an individual's exercise performance and monitoring training load. The discrepant results published so far are due to several factors including insufficient study size and design, and different HRV methods. Large-sized and prospectively designed studies are necessary for clarification. It also remains to be seen whether the traditional HRV indices prove useful in the diagnosis of overreaching and overtraining. Preliminary results, although promising, need to be confirmed in larger cohorts. A basic problem in HRV analysis is nonstationarity of the heart rate signal, which holds particularly true for exercise conditions. Whether, in these conditions, more robust nonlinear HRV methods offer a benefit has to be established in further work.

Impact factor of *HERZ*

The 2012 impact factor (IF) for *HERZ* is 0.779. The annual IF describes the proportion of citations to citable articles in a journal. With regard to *HERZ* this means that the 136 articles published in 2010 and 2011 (72 and 64, respectively) were cited 106 times in 2012. Only 12 citations were by *HERZ*; the other 106 citations were by other journals.

HERZ is listed in the Thomson Reuters databases SciSearch® and Journal Citation Reports, and together with 121 other journals belongs to the category "Cardiac & Cardiovascular Systems." This category's median IF is 2.132, and *Circulation* leads the category with an IF of 15.202.

Submission note

Owing to a publication backlog in these categories, the submission of case reports and images is shut down on 1 January 2014 until further notice.

We would like to thank all the authors who contribute papers to *HERZ* and we are very curious to see which papers will be the ones most read in 2013.

Heidrun Guthöhrlein
HERZ Editorial, Munich

Wolfgang U. Eckart **Geschichte, Theorie und Ethik in der Medizin**

Springer Verlag 2013
373 Seiten, 46 Abb.
(ISBN 978-3-642-34971-3),
broschiert, 22,00 EUR

In der Approbationsordnung für Ärzte wurde im Rahmen des Querschnittsbereichs "Geschichte, Theorie, Ethik der Medizin" der medizinhistorische, medizintheoretische und medizinethische Unterricht in die klinische ärztliche Ausbildung integriert und im Examen geprüft.

Einen Überblick über das Querschnittsfach gibt - bereits in der siebten Auflage - das vorliegende Taschenbuch.

Die moderne wissenschaftliche Medizin fußt auf der Grundlage der Heilkunst, die in der griechischen und römischen Antike geschaffen wurden. Fernwirkungen haben die Persönlichkeiten wie Hippocrates und Galen, deren Konzepte von einem Gleichgewicht der Grundelemente, Grundqualitäten und Körpersäften bestimmt war. Diät, Abführmaßnahmen, frühere chirurgische Techniken und pharmakologische Darreichung werden dargestellt und zum Teil mit neuzeitlichen Erfahrungen verknüpft. Die Medizin der griechischen und römischen Antike, die byzantinische Medizin, die Medizin im Mittelalter und Renaissance wird in einzelnen Kapiteln dem Aufbruch in die moderne Medizin vom 17. bis 21. Jahrhunderts gegenübergestellt.

Der geschichtliche Bogen von der Antike zur modernen Gesellschaft wird spannend und unterhaltsam geschlagen. Die Fakten, Konzepte und die geistliche Haltung werden klar strukturiert dargestellt und miteinander vernetzt.

Die theoretischen Grundlagen der Medizin, Ethik mit den Grenzkonflikten sind weitere Themen.

Fehlentwicklungen der modernen Medizin oder ideologische Verstrickungen im Nationalsozialismus und den Krieg werden kritisch beleuchtet.

In der siebten Auflage wurden die Themen Theorie und Ethik in der Medizin grundlegend überarbeitet und angepasst an die aktuellen Prüfungsanforderungen in eigenständige Kapitel aufgenommen.

Die Medizin wird in allen Epochen kompakt und anschaulich geschildert, so dass der angehende Mediziner sich für die Prüfung gezielt vorbereiten kann.

Die Medizin-Geschichte wird lebendig im Querschnittsfach zum Lernen, Schmökern und Nachschlagen!

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