

The new EFSUMB Guidelines on Liver Elastography 2017: why and for whom?

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Some years ago, during the WFUMB Meeting in Vienna in 2011, leaders in the field of ultrasound decided to issue the first European Guidelines on ultrasound based elastography. For more than a year, more than 25 experts in different fields worked together and finally the first ever EFSUMB Guidelines and Recommendations on Elastography were published in 2013 in the European Journal of Ultrasound (*Ultraschall in der Medizin*). This first part of the Guidelines presented data regarding the physics and technology of elastography, while the second presents the clinical applications of elastography covering 7 organs (including liver, breast, thyroid, prostate [1,2]). For many specialists in the field of ultrasound, these Guidelines were the first contact with elastography and gave them information on this new method.

Following the European Guidelines, some of the National Societies issued their own Guidelines on liver elastography, starting from their large experience in the field. The Japanese Guidelines on Liver Elastography [3] and the Romanian Guidelines and Recommendations on Liver Elastography [4] were good papers to use in clinical practice. The World Federation of Ultrasound in Medicine and Biology (WFUMB) decided to issue its own Guidelines on Elastography, which were published in three parts in 2015 in the *Ultrasound in Medicine and Biology* journal [5-7]. These Guidelines cover to a very high level the physics of elastography as well as liver and breast elastography, enabling this method to be spread at global level.

During the last years, the development of liver elastography was impressive. Many elastographic systems appeared on the market and, in this moment, Shear Wave Elastography (SWE) is almost exclusively used for liver stiffness evaluation. SWE methods include Transient Elastography, point SWE, and 2D-SWE. Since many papers were published on this topic in the last two years, EFSUMB decided to issue new Guidelines on liver elastography. Working together for many months, a group of approximately 20 experts in the field of liver elastography succeeded to produce the new EFSUMB Guidelines on liver Elastography 2017 (EFSUMB Guidelines and Recommendations on the Clinical Use of Liver Ultrasound Elastography, update 2017). This paper was sent for publication in *Ultraschall in der Medizin* and will appear very soon.

The first question is why do we need new EFSUMB Guidelines on liver elastography? The answer is because the body of evidence accumulated in the last 3-4 years on this topic is so abundant that the new information must be refined and sent to the specialists in the field. Secondly, because the practical experience on liver elastography is now extensive and allows pertinent recommendations. As compared with the first EFSUMB Guidelines, the second edition presents data on liver elastography not only with Transient Elastography, but also the experience with point SWE (especially VTQ) and 2D-SWE (especially SSI). The first section of the paper presents the physics and the systems used in liver elastography and is continued with practical recommendations on how to use this method.

The second question is to whom are these Guidelines addressed to. First of all, to anyone who likes to know what is new in the field of medicine. Secondly to specialists who work in the field of hepatology, because in the last years liver stiffness evaluation using elastography replaced in many cases liver biopsy. In many countries, including Romania, liver elastography replaced quite

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completely liver biopsy (especially in C chronic viral hepatitis). Ultrasound based elastography of the liver is performed by gastroenterologists and hepatologists, internal medicine specialist, and by radiologists. If in the USA, Magnetic Resonance Elastography (MRE) is continuously developing, in Europe liver elastography is performed quite exclusively by ultrasound.

Considering the results of published papers and meta-analyses, the new EFSUMB Guidelines publish cut-off values for different liver elastographic methods, in different chronic liver diseases (such as chronic viral hepatitis, alcoholic and non-alcoholic steatohepatitis, and others). Limitations and tricks of these methods are presented.

Finally, the new EFSUMB Guidelines on Liver Elastography are welcome for everybody. It is a well done material, written by the most experienced European specialists in liver elastography, very useful for practitioners.

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