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Superficial soft tissue tumors: Role of sonoelastography

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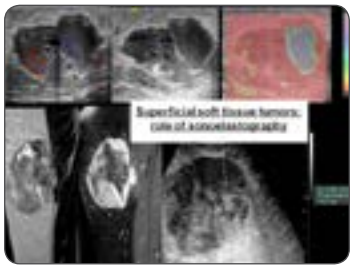
Statement of the Problem: Sonoelastography (SE) is a new ultrasound technique that is increasingly used for the evaluation and characterization of soft tissue lesions. Two main SE techniques are distinguished: Compression sonoelastography (CSE) and shear-wave elastography (highlighting the ARFI method: Acoustic Radiation Force Impulse). The relevance of SE in the diagnosis of prostate, breast, thyroid and lymph node lesions has been reported but there are no concluding references to musculoskeletal tumors. Sometimes it is a diagnostic challenge to define the benignity or malignancy of superficial soft tissue tumors (SSTT), as well as its histological type, by means of different imaging techniques, so in most cases a biopsy is used for histological diagnosis.

Purpose: The purpose of this study is to describe the SE features of different histological types of SSTT.

Methodology & Theoretical Orientation: During a period of 7 years, SSTT were consecutively evaluated using the CSE and ARFI techniques. An Acuson S2000 (Siemens, Germany) ultrasound machine was used. In all cases, ultrasound-guided biopsy was performed and histological diagnosis was obtained.

Findings: 185 SSTT were included, of which 44.3% (n=82) were sarcomas. The WHO classification of SSTT differences 9 histological categories and cases of all of them were obtained. In addition, other SSTT not included in this classification were included.

Conclusion & Significance: The use of SE increases diagnostic accuracy in determining the histological type of SSTT.



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4. Berná Serna J D et al. (2008) Osteochondritis dissecans of the knee: Sonographically guided percutaneous drilling. J. Ultrasound Med. 27(2):255-259.

Biography

Juan de Dios Berna Mestre has more than 10 years of hospital care experience as radiologist, as well as teaching at the medical school. In his research career he has several publications on various topics, especially on new techniques of ultrasound. His main field of interest is musculoskeletal radiology and one of his main lines of research is the development of a new technique for the imaging diagnosis of the male urethra: the clamp method.

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