Elastography: A Practical Approach

This practical guide is a compilation of firsthand expertise from leading authorities around the world on the use of ultrasound elastography. The stiffness or softness of the imaged tissue derived from elastography provides accurate radiologic diagnosis for disease processes including cancer, inflammation, and fibrosis.

It is an efficacious and accurate diagnostic imaging modality that helps avoid invasive biopsies.

The first two chapters cover basic fundamental principles of elastography, with subsequent chapters exploring pathology-specific utilization. The authors cover the extensively validated and implemented use of elastography for diffuse liver disease, and diseases of the breast and thyroid gland. They also discuss the potential benefits and limitations for the prostate, spleen, pancreas, kidneys, musculoskeletal system, salivary glands, lymph nodes, and testes. The book concludes with a chapter on potential future applications of this ever-evolving technology.

Key highlights:
- Discussion of key differences between strain elastography and shear wave elastography by individual organ systems
- Clinical pearls on how to accurately perform elastography and tips for avoiding false-positive or false-negative results
- Case studies elucidate the targeted use of elastographic findings by specific pathology
- Illustrations in the breast and liver chapters demonstrate precise transducer techniques
- MRI elastography as an emerging and safe assessment tool, primarily for the diagnosis of liver disease, with emergent potential for additional organs

This book provides key knowledge on visualizing quantifiable differences in tissue elasticity and applying this data to improved treatment strategies for diverse pathologies. It is essential reading for radiologists, sonographers, and imaging technicians.