

The course is designed for radiologists and medical physicians involved in breast ultrasound. Throughout the years ultrasonography of the breast has evolved to an important screening and diagnostic imaging modality.

The various indications, the technical options available for an optimized and accurate examination such as Compound and Harmonic Imaging, Speed of Sound and power Doppler and thorough presentation of recent developments of Elastography and Automated Breast Ultrasound (ABUS) will be presented.

A lecture on ACR's BI-RADS lexicon for ultrasound will be provided which helps radiologists to keep clarity in the reports, to achieve better and clear communication with clinicians, to use the feature analysis when assessing a lesion, to correlate ultrasound findings with the modalities and clinical data and to ensure optimal quality management and treatment to patients.

A dedicated lecture which will encompass all benign breast entities that are much more common than malignant ones and breast ultrasound is a useful diagnostic tool to complement mammography or distinguishing cysts that don't need further management from solid tumors that may present a malignancy.

In recent years the wide range of percutaneous biopsies has led to a significant increase in the incidence of high risk lesions. The management of these lesions is nowadays a great challenge for the radiologists. Presentation of imaging findings and management of these lesions will be included.

It is well known that greater breast density results in lower sensitivity for mammography, due to the masking effect of non-calcified cancers. On the other hand results of multiple studies have indicated that supplemental screening with ultrasound in women with dense breasts increases breast cancer detection rate between 1.8 to 4.6 cancers per 1,000 women screened. Factors hampering its implementation include shortage of well trained physicians, small FOV and the operator dependence. These limitations lead to the development of three-dimensional automated breast ultrasound systems which provide standardized exams, global visualization of the breast and are non-operator dependent.

Because ultrasound is an interactive, dynamic imaging modality attendees will have the opportunity to extend their knowledge by participating in hands-on workshops of Hand-held Ultrasound Scanning Techniques, Strain Elastography, Ultrasound Guided Core Biopsies and Automated Breast Ultrasound (ABUS).