EDITORIAL

Women's imaging: What's new in 2019?

Women's imaging has now a major importance for appropriate patient management. Since many years, the introduction of the breast imaging reporting and data system (BI-RADS) n in mammography, ultrasonography and magnetic resonance imaging (MRI) has dramatically changed the decisions taken during multidisciplinary meetings for women with breast cancer [1,2]. Many new techniques has been developed to improve the performance of breast imaging techniques in terms of tumor detection and characterization. These techniques are based on X rays with breast tomosynthesis [3] or contrast-enhanced mammography [4], based on ultrasound with elastography [5,6] or three-dimensional (3D) acquisition [7] and on magnetic resonance imaging (MRI) with abbreviated protocols [8] and the development of deep learning methods for artificial intelligence [9]. Parallel to improved acquisition techniques, image analysis will be revolutionized by artificial intelligence, which will probably have a major impact on breast imaging and especially on breast screening. French breast radiologists are expecting many developments in this domain that are presented in a French Radiology Community position paper [10].

More recently, pelvic MR imaging has also been recognized as a standard in several indications of gynecological pathology. In 2017, the French National Authority for Health (Haute Autorité de Santé [HAS]) has published recommendations that underlined the value of pelvic MRI to diagnose pelvic endometriosis [11] for initial staging but also after surgery to detect recurrence [12]. In 2018, The French National Cancer Institute (INCa) has published evidenced-based guidelines that recommend performance of MRI examination to characterize any complex adnexal masses depicted at ultrasonography and to use a scoring system at the end of each MRI report to estimate the risk of malignancy [13]. This score is designed on the model of Bi-RADS and may help clinician manage adnexal masses [14]. Although MRI is well recognized as the best second line imaging technique to characterize adnexal masses, CT remains the reference standard for the initial staging of ovarian cancer and radiomics analysis may provide additional features to predict prognosis [15]. Finally, in 2019, the greatest potential of pelvic MRI is its ability to help distinguish between benign leiomyomas and leiomyosarcomas, especially in premenopausal women for whom hysterectomy and conservative treatments are the two therapeutic options. Thus, the negative impact of a false-positive finding on imaging may be terrible for a young woman who is keen to preserve her fertility. Several scores have been developed to help characterize a myometrial lesion and, it is assumed that they may help clinician to limit overtreatment [16,17].

We hope you will enjoy this special issue that will give an overview of the hottest topics in women's imaging.

Disclosure of interest

The authors declare that they have no competing interest.

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