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Digital image analysis in breast pathology –from image processing techniques to artificial intelligence

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Abbreviations: DIA = digital image analysis; AI = artificial intelligence; H&E = hematoxylin and eosin; IHC = immunohistochemistry; ISH = *in situ* hybridization; DCIS = ductal carcinoma in situ; NHG = Nottingham histological grade; ER = estrogen receptor α ; PR = progesterone receptor; HER2 = human epidermal growth factor receptor 2; ASCO = The American Society of Clinical Oncology; CAP = College of American Pathologists; DNA = deoxyribonucleic acid; mRNA = messenger ribonucleic acid; WSI = whole slide imaging; CAD = computer-aided diagnosis; RF = random forest; SVM = support vector machine; MIL = multiple instance learning; ConvNet = convolutional network.

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