HIDING IN PLAIN SITE, ARCHITECTURAL DISTORTIONS AND BREAST ASYMMETRIES

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ARCHITECTURAL DISTORTIONS

- Definition is disruption of the natural flow of breast pattern towards the nipple
- Some are malignant
- Some are benign
- Some are radial scars

Finding them in two dimensional mammography can be challenging unless the area is in adipose tissue.
ARCHITECTURAL DISTORTIONS

- The problem with two dimensional breast imaging is superimposition of the glandular anatomy.

- DBT displays architectural distortions with great detail in different tomosynthesis views.

- In fact, DBT displays asymmetries, masses, distortions, and cancers better than calcifications because of edge depiction. Seeing the lesion in its entirety.

BREAST IMAGING LEXICON

- Breast Imaging Lexicon
- Terminology has evolved over many years, and the results have often led to confusion as to their meaning. The descriptive terms and definitions have been recommended by the ACR Committee on Breast Cancer, and it is hoped that all those involved in breast imaging will adopt the terms from ACR BI-RADS system Lexicon.
WHAT IS BI-RADS ACRONYM?

Breast Imaging reporting and data system
In the BI-RADS edition 2013 the assignment of the breast composition is changed into a, b, c and d-categories followed by a description:

- **a**: The breast are almost entirely fatty. Mammography is highly sensitive in this setting.
- **b**: There are scattered areas of fibroglandular density. The term density describes the degree of x-ray attenuation of breast tissue but not discrete mammographic findings.
- **c**: The breasts are heterogeneously dense, which may obscure small masses. Some areas in the breasts are sufficiently dense to obscure small masses.
- **d**: The breasts are extremely dense, which lowers the sensitivity of mammography.
• The fibroglandular tissue in the upper part is sufficiently dense to obscure small masses. So it is called c, because small masses can be obscured. Historically this would have been called an ACR 2: 25-50% density.

ASYMmetry (OneView Finding)

• Asymmetry in the breast is planar: lack convex borders, usually contains an interspersed fat and lacks the conspicuous of a three dimensional mass. In order to clarify asymmetry, the term “global asymmetry” was introduced for reasons clarifying between generalized and focal asymmetry.
• Term Asymmetries/Global/Focal/Developing Asymmetries
FOCAL ASYMMETRY (TWO VIEW FINDING)

- A density that cannot be accurately described using the other shapes.
- It is visible as asymmetry of tissue density with a similar shape on two views, but completely lacking borders and the conspicuity of a true mass.
- It could represent an island of normal breast, but its lack of specific benign characteristics that may warrant further evaluation.
- Additional imaging may reveal a true mass or significant architectural distortion. Term Asymmetries/Developing Asymetry
- Due to confusion of the term “mass” with the term “density”, which describes attenuation characteristics of masses, the term “density” has been replaced with “Asymmetry”.

MASS AND MARGINS

- A “Mass” is a space-occupying lesion seen in two different projections. If a potential mass is seen in only a single projection it should be called an Asymmetry until its three dimensionality is confirmed.
- Masses/Shape
- No more lobular terminology allowed

MASS AND MARGINS

- Mass is first described by the Shape:
  - Oval
  - Round
  - Irregular
Mass and Margins

- Mass is described by its margin.
- Circumscribed which is well defined or sharply defined.
- Micro-lobulated.
- Obscured-hidden by superimposed tissue.
- Indistinct (ill-defined) infiltration by the lesion.
- Spiculated Margin-lines radiating from the margin of a mass.
Mass AND MARGINS

- Mass is described by the Density:
  - High-density
  - Equal-density
  - Low-density, but not fat containing
  - Fat containing Radiolucent
RESULTS....

- IDC intermediate grade
RESULTS.....

- IDC high grade