Case 1 High-grade Neuroendocrine Carcinoma

**Patient Age:** 51 years

**Clinical Findings:** History of right mastectomy (IDC)

**Mammography:** Mammography of the left breast shows a large round, lobulated, noncalcified dense mass filling the breast.

**Ultrasound:** Confirms the presence of a lobulated 8x5 cm mass with heterogeneous matrix

**CTLM:** Shows a large spherical volume of angiogenesis at the same geographic location

**Pathology:** Core biopsy histology shows high grade neuroendocrine carcinoma

**IDSI Comment:** It is impossible on both the mammogram and the ultrasound study to determine whether this mass was malignant. The CTLM immediately confirms the presence of extensive angiogenesis mandating biopsy.

Case 2 Intraductal Carcinoma (IDC)

**Patient Age:** 35 years

**Clinical Findings:** Palpable mass in the right breast

**Mammography:** Mammography of the right breast shows focal asymmetry in the upper inner quadrant

**Ultrasound:** Ultrasound shows focal hypoechogenicity in upper outer quadrant

**CTLM:** CTLM of the right breast reveals angiogenesis at 1 o’clock.

**Pathology:** Core biopsy histology diagnosis: Intraductal Carcinoma (IDC)

**IDSI Comment:** Ultrasonography did not confirm a lesion in the area of the mammogram, but the CTLM revealed very obvious angiogenesis in the same geographic region as the mammographic asymmetry.

Case 3 Intraductal Carcinoma (IDC)

**Patient Age:** 46 years

**Clinical Findings:** Tissue thickening in the 3 o’clock position of left breast

**Mammography:** Mammography of the left breast shows a spiculated mass with pleomorphic microcalcifications.

**Ultrasound:** Ultrasound shows an ill-defined, irregular, hypoechoic mass of 40x25 mm at 3 o’clock.

**CTLM:** CTLM of the left breast shows a bilobed volume of angiogenesis at 3 o’clock extending back to the chest wall.

**Pathology:** Intraductal Carcinoma (IDC)

**IDSI Comment:** “The bilobed volume of angiogenesis on the CTLM fits very well the bilobed appearance of the mass on the mammogram, suggesting with a high level of certainty that portions of the mass are malignant.”