



The Effects of the Menstrual Cycle on Imaging

As is common in mammography, ultrasound, MRI and PEM, the quality of a BSGI image can be impacted by a patient's menstrual cycle. Depending on the case, this heterogeneity may or may not be significant enough to complicate image interpretation. The most significant glandular tissue enhancement occurs during the luteal phase of the cycle, from day 18 until the onset of menses.

Therefore, it is suggested that timing BSGI with the menstrual cycle may be beneficial in premenopausal patients when it is possible and appropriate to do so. The most common timing protocol in use today is scheduling imaging between days 2 – 14.

This heterogeneous uptake pattern can also be observed in patients undergoing hormone replacement therapy, those who are perimenopausal or those with an irregular menstrual cycle. If there is significant heterogeneity causing difficult interpretation in these cases, repeating the scan in 10 – 14 days may be beneficial.

The case below is an example of how imaging during the luteal phase can affect a BSGI image.

