Mucocele-like lesion of the breast

**Definition:** Microscopic mucinous cystic lesion composed of mucin containing cysts that often rupture, with extravasation of mucin into surrounding stroma. Cysts are lined by flat epithelium without atypia. (Am J Surg Pathol 1986;10:464)

**Diagnostic criteria:** Pools of mucin in stroma variably lined by bland epithelium which may be one layer thick or hyperplastic – designation as “benign mucocele-like lesion”

If lined by atypical epithelium, designate according to degree of atypia:

- Columnar cell change and columnar cell hyperplasia with or without atypia associated with mucocele-like lesion (J Med Case Reports 2008; 2:138).
- Atypical hyperplasia associated with mucocele-like lesion
- DCIS associated with mucocele-like lesion

**Diagnostic problems in breast core biopsies:** In correlation studies of core needle biopsy with subsequent excisional specimens are spectrum of mucocele-like lesions ranging from totally benign to atypical and/or associated with DCIS or mucinous carcinoma. According to atypia, excision may show either residual associated ADH or DCIS but majority of totally benign lesions have no atypia on excision. Therefore, it has been suggested that surgery may potentially be avoided in histologically benign lesions,
although such an approach requires further validation (Mod Pathol 22(Suppl 1):258A, 2009).


**Clinical features:** Mucin extravasation or mucocele-like lesions at core needle biopsy warrant close radiologic-pathologic correlation and in many cases excision (Histopathology 2009;55:609, Diagnostic Pathology 2011;6:29)

Mucocele-like lesion may be premalignant when associated with ADH or focal mucinous carcinoma.

Mucocel-like lesion often appears malignant radiologically due to associated microcalcifications (Breast J 2005;11:15) or associated density mimicking architectural distortion on mammography as in our presented case.

**Differential diagnosis:** Ductal carcinoma in situ with mucinous differentiation and mucin extravasation and mucinous carcinoma (Cytopathology 2004;15:104)

**Treatment:**