**CASE REPORT**

A 59-year-old and a 53-year-old woman underwent fine-needle aspiration biopsy cytology (FNABC) of a breast tumor, confirming malignancy. A mastectomy with axillary dissection was performed. Cytologically, a moderate amount of eosinophilic, finely granular cytoplasm was seen in the majority of the tumor cells, however, foamy and vacuolated cytoplasm was noted in some tumor cells. Histologically, the tumor cells of both cases had clear and granular cytoplasm, which showed a positive reaction with periodic acid-Schiff, eliminated by diastase.

**Conclusion**: While clear cytoplasm in the tumor cells in the FNABC seemed to be a pivotal cytological characteristic of glycogen-rich carcinoma, it may not be a major component of cytological specimens. Routine periodic acid-Schiff staining may be required to diagnose glycogen-rich carcinoma in cytological methods. J. Med. Invest. 49 : 193-196, 2002

**Keywords**: breast, fine-needle aspiration biopsy cytology, glycogen-rich carcinoma, c-erbB-2, cytology
N. Satake et al.
glycogen-rich carcinoma of the breast
glycogen-rich carcinoma of the breast