

**46th ANNUAL DIAGNOSTIC SLIDE SESSION, 2005
REFERENCES AND DIAGNOSES**

MODERATOR: E. Tessa Hedley-Whyte, M.D.

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Case 2005-9

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Diagnosis: Metastatic signet ring cell adenocarcinoma

Comment: On ICC, the large cells in the muscle were positive for cytokeratin 7 (CK7), with rare cells that were positive for CK20. Many macrophages in the muscle were positive for CD68, but the large cells that were positive for CK7 were negative for CD68. On electron microscopy, the large cells had desmosomes, mucin and intracytoplasmic, membrane bound lumina. The patient had a pleural effusion, and cytologic examination of the fluid demonstrated similar cells. Metastases to skeletal muscle are rare, and it has been postulated that muscle may be resistant to metastatic carcinoma. The most commonly reported primary site that has metastases in skeletal muscle is lung carcinoma, with gastric carcinoma, as in this patient, as the second most common primary site.

References:

Tuoheti Y, Okada K, Osanai T, et al: Skeletal muscle metastases of carcinoma: a clinicopathological study of 12 cases. *Jpn J Clin Oncol* 2004; 34:210-214.

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Condo S, Onodera H, Kan S, Uchida S, Toguchida J, Imamura M: Intramuscular metastasis from gastric cancer. *Gastric Cancer* 2002; 5:107-111.