短 報

Aspiration cytodiagnosis of metastatic carcinoma of umbilicus

—Sister Mary Joseph's nodule—

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I. Abstract

A case of metastatic mucus producing adenocarcinoma of the umbilicus (Sister Mary Joseph's nodule) is described. The primary tumour was an adenocarcinoma of the sigmoid colon. The cell blocks from the aspirate highlighted the histological features of the metastatic tumour with extensive mucus production which was also confirmed by alcian blue and mucicarmine stains.

II. Introduction

Metastatic carcinoma of the umbilicus (popularly known as Sister Mary Joseph's nodule) are rare (1-4, 8-9). Recently, a case was described in which the diagnosis was made for the first time by needle aspiration cytology (NAC) (10) and very recently NAC findings in two cases were described from this laboratory (6-7). In this communication another case is reported in which the diagnosis was made by NAC.

III. Case Report

A 66 year old caucasian female presented with

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abdominal pain of a few weeks duration. A 3×1.8 cm hard nodule was found in the umbilicus. Recently, she was diagnosed as having a mucus producing adenocarcinoma of the sigmoid colon with invasion of the wall and metastasis in two out of eight lymph nodes. NAC of the umbilical nodule was performed, using a 22 gauge needle. At this time the patient is rapidly going down hill and is being treated as terminal case.

IV. Material and Methods

For cytologic examination the aspirated material in the syringe and needle was immediately washed in a cytology container in which 30% ethyl alcohol in physiologic saline was present. From these washings, filter preparations were made using the cytosieve method (5) on 25 mm Sartorius filters pore size, 5 microns. Additionally, cytospin preparations and cell block preparations were made from the washings. The filter preparations and cytospin preparations after fixation in 95% ethyl alcohol were stained by a modified Papanicolaou stain (5), while the sections of cell block were cut after routine processing, and stained by Hematoxylin-eosin stain for studying the histological features of the tumour. For immunocytochemical stains cytospin preparations and sections of the cell block were utilised.

V. Cytohistologic Findings

Papanicolaou stained filter preparations, cytospin preparations and Hematoxylin and eosin stained

Fig. 1 Filter preparation from needle aspirate showing groups of malignant cells with mucus (Pap. stain $\times 450$)

sections of the cell block showed numerous tumour cells with features of a mucus producing moderately differentiated adenocarcinoma which was confirmed using alcian blue and mucicarmine stains. The malignant cell nuclei were large, oval to lobulated and hyperchromatic. The chromatin was moderately coarse and the nuclear membranes were irregular. Nucleoli were prominent and somewhat irregular and were variable in number (Fig. 1). Similar findings were also noted in the histologic sections of the tumour in the sigmoid colon.

VI. Immunocytochemical Findings

Immunostaining was done on cytospin preparations and sections of cell block for carcinoembryonic antigen (CEA), B 72.3 and epithelial membrane antigen (EMA) utilizing commercially available kits of antibodies. The malignant cells stained intensely positive with all the markers. Known positive and negative controls were used.

VII. Discussion

Tumour deposits in the umbilicus usually indicate a widespread tumour of gastrointestinal or gynaecological origin (1, 3, 9). Rarely primary tumours in other sites have been reported (2). In the majority

of patients the prognosis is grave with a survival of few days to few weeks. This seemed true in the case reported here, since the patient is rapidly going downhill.

NAC has not been commonly used for the diagnosis of metastatic disease of the umbilicus till very recently (6, 7, 10). In view of its utility as a non invasive and rapid method for diagnosis it is recommended in all cases that present with a suspicious umbilical nodule.

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