The Journal of Laryngology and Otology
March 2000, Vol. **114,** pp. 229–230

Metastatic endometrial carcinoma of the neck

M. A. Siddiq, F.R.C.S. (Ed.), S. K. Bhudia, M.B.B.S., P. Gana, F.R.C.S., P. J. Patel, F.R.C.S.

Abstract
We report a case of metastatic endometrial carcinoma of the neck. A patient with a past medical history of squamous cell carcinoma of the larynx, breast carcinoma and endometrial carcinoma presented with a neck mass. Fine needle aspiration cytology (FNAC) showed this to be a poorly differentiated carcinoma with squamoid features and thus a potentially curative neck dissection was performed. Histology of the mass showed a clear cell endometrial carcinoma. Metastatic gynacecological malignancies to the head and neck are rare and this is the first reported case of metastatic endometrial carcinoma in the neck.

Key words: Endometrial neoplasms; Neoplasm metastasis; Head and neck neoplasms

Case report

A 69-year-old woman presented with a three-week history of a left-sided neck lump. There was no history of dysphagia, voice change or weight loss.

The patient's past medical history included the following: eight years previously she had had a T_1 carcinoma of the left breast treated with lumpectomy and post-operative radiotherapy; two years previously she had been treated with radiotherapy for a T_2 glottic squamous cell carcinoma; one year previously, she had developed a stage 1b clear cell endometrial carcinoma. Tamoxifen was stopped and she underwent a total abdominal hysterectomy and bilateral salpingo-oophorectomy. There was no clinical evidence of localized recurrent disease from any of the three malignancies at follow up.

Fine needle aspiration cytology (FNAC) of the mass showed necrotic cells, with some viable cells which were squamoid in appearance (Figure 1). In view of her history of laryngeal carcinoma the specimen was reported in keeping with metastatic squamous cell carcinoma. She therefore underwent a neck dissection. Operative findings revealed an extensive mass of enlarged confluent lymph nodes in the posterior triangle extending beneath the trapezius as well as tumour tissue around the lower end of the internal jugular vein.

Histological examination showed the tumour to be metastatic adenocarcinoma with extensive necrosis and areas of clear cell differentiation and a focal papillary pattern (Figure 2). The appearances were like that seen in the primary endometrial carcinoma (Figure 3), indicating metastatic endometrial cancer.

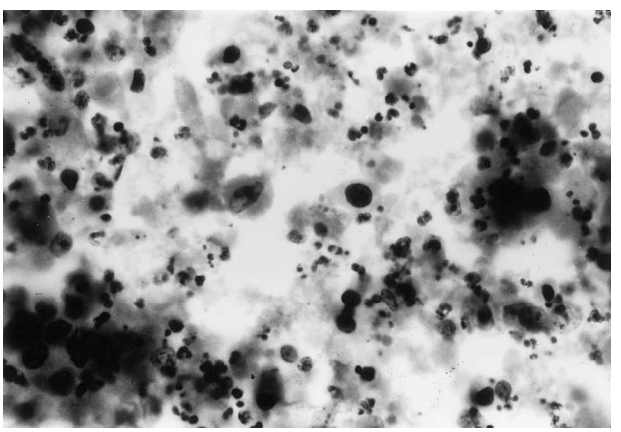

Fig. 1
FNAC neck mass. Cellular specimen consisting of abundant necrotic cells and debris. The few viable cells present have a squamoid appearance with abundant organophilic cytoplasm (Papanicolaou stain; ×40).

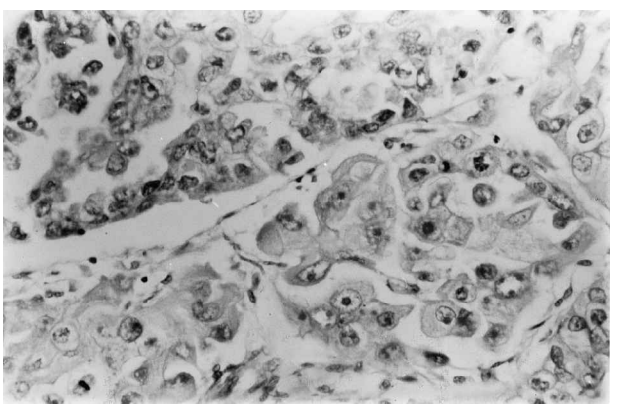

Fig. 2
Histology of metastatic tumour in neck dissection. Papillary, glandular arrangement of tumour cells with focal clear cell change in keeping with metastatic tumour from the original clear cell adenocarcinoma (H & E; ×40).

From the Department of Otolaryngology, Walsgrave Hospital, Clifford Bridge Road, Coventry, UK.
Accepted for publication: 27 October 1999.

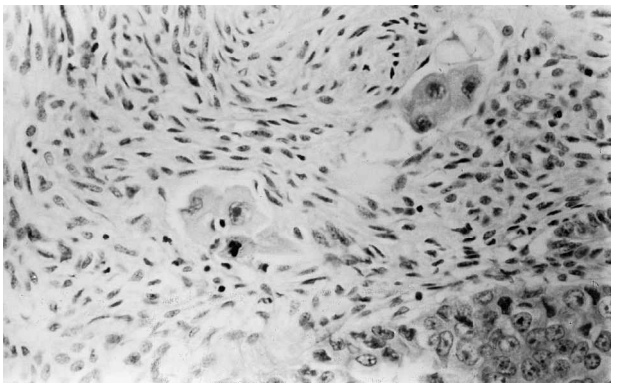

FIG. 3

Histology of endometrial carcinoma. Early myometrial invasion by endometrial carcinoma. Note the squamoid appearance of the small groups of cells in this photomicrograph. Elsewhere the tumour had a typical clear cell pattern (H & E; ×40).

Discussion

Tumours metastasizing from distant organs to the head and neck are uncommon. In a review of 72 cases by Friedmann and Osborn,[1] only two metastases from gynaecological malignancies were reported. These were both from leiomyosarcoma of the uterus, metastasizing to the frontal sinus and palate respectively. The other primary sites where metastases originated included bronchus, kidney, breast, prostate and stomach, with the commonest primary site being the kidney, and the nose and paranasal sinuses being the commonest site of secondary deposits.

Other reports of head and neck metastases from gynaecological malignancies are rare. Kataoka *et al.*[2] reported a metastasis to the nasal tip from a cervical carcinoma. Scott *et al.*[3] described an ethmoid metastasis of endometrial carcinoma presenting as a mucocele of the maxillary antrum. Metastases of endometrial carcinoma have also been reported in the brain,[4] skin,[5] iris[6] and in the head and neck region in the maxilla[7] and tongue.[8] These metastases were all in non-lmphoidal tissues and we have found no other report in the literature of this tumour metastasizing to the cervical lymph nodes. FNAC is widely used as a diagnostic aid in head and neck masses and is generally considered a safe, rapid and cost-effective diagnostic tool in their management. It has a reported low false positive rate of 0–1 per cent,[9–11] and a concurrence rate with histological diagnosis of 80–95 per cent[10,12–14]

In this patient, a false positive FNAC for squamous cell carcinoma in the presence of a past history of laryngeal carcinoma led to a neck dissection as a potential curative procedure which in view of the later histology of metastatic endometrial carcinoma was inappropriate.

This case report highlights several interesting features. Firstly metastatic endometrial carcinoma in the head and neck is rare and this is the first reported case of clear cell endometrial carcinoma presenting as a neck mass. Additionally, despite the accuracy and wide use of FNAC in diagnosis of head and neck masses, certain factors may make interpretation difficult. Extensive necrosis of the tumour, the aspiration of a possibly unrepresentative sample of the tumour leading to some tumours masquerading as other tumours on FNAC, is illustrated in this case. As Figure 1 demonstrates, the FNAC showed extensive necrosis. Figure 3 illustrates the existence of islands of squamoid cells in the endometrial carcinoma which were probably aspirated from the metastatic tumour in the neck and misinterpreted as consistent with squamous cell carcinoma. Thus FNAC, as a diagnostic aid, should always be used in conjunction with further relevant investigations and clinical assessment.

Acknowledgements

We would like to thank Dr Ramsden, Consultant Histopathologist at Walsgrave Hospital for supplying the photomicrographs and helping in their interpretation.

References

1 Friedmann I, Osborn DA. Metastatic tumours in the ear, nose and throat region. *J Laryngol Otol* 1965;**79**:576–91
2 Kataoka A, Nishida T, Tomioka Y, Hirai N, Ohbuchi M, Yakushiji M. A metastasis to the nasal tip from a cervical carcinoma – a case report. *Kurume Med J* 1998;**45**:127–31
3 Scott A, Raine M, Stansbie JM. Ethmoid metastasis of endometrial carcinoma causing mucocoele of maxillary antrum. *J Laryngol Otol* 1998;**112**:283–5
4 Cormio G, Lissoni A, Losa G, Zanetta G, Pellegrino A, Mangioni C. Brain metastasis from endometrial carcinoma. *Gynecol Oncol* 1996;**61**:40–3
5 Damewood MD, Rosenshein NB, Grumbine FC, Parmley TH. Cutaneous metastasis of endometrial carcinoma. *Cancer* 1980;**46**:1471–5
6 Capeans C, Santos L, Sanchez-Salorio M, Forteza J. Iris metastases from endometrial carcinoma. *Am J Ophthalmol* 1998;**125**:729–30
7 Orlian AJ. Metastatic endometrial carcinoma to the maxilla. *N Y St Dent J* 1978;**44**:188–9
8 Baden E, Duvillard P, Micheau C. Metastatic papillary endometrial carcinoma of the tongue. Case report and review of the literature. *Arch Pathol Lab Med* 1992;**116**:965–8
9 Guyot JP, Auberson S, Obradovic D, Lehmann W. Fine-needle aspiration in the diagnosis of head and neck growths: the pitfalls of false-positive diagnosis. *ORL* 1993;**55**:41–4
10 Wilson JA, McIntyre MA, von Haacke NP, Maran AG. Fine needle aspiration biopsy and the otolaryngologist. *J Laryngol Otol* 1987;**101**:595–600
11 Schelkun PM, Grundy WG. Fine-needle aspiration biopsy of head and neck lesions. *J Oral Maxillofac Surg* 1991;**49**:262–7
12 Sismanis A, Merriam J, Yamaguchi KT, Shapshay SM, Strong MS. Diagnostic value of fine needle aspiration biopsy in neoplasms of the head and neck. *Otolaryngol Head Neck Surg* 1981;**89**:62–6
13 Sismanis A, Strong MS, Merriam J. Fine needle aspiration biopsy diagnosis of neck masses. *Otolaryngol Clin North Am* 1980;**13**:421–9
14 Guyot JP, Obradovic D, Krayenbuhl M, Zbaeren P, Lehmann W. Fine-needle aspiration in the diagnosis of head and neck growths: is it necessary? *Otolaryngol Head Neck Surg* 1990;**103**:697–701

Address for correspondence:
Mr M. A. Siddiq, F.R.C.S. (Ed.),
125 Broadway,
Walsall,
West Midlands WS1 3HB.