

When reviewed in 3 weeks she was complaining of considerable irritation of the vulval area. Examination showed unchanged appearance of the cervix and two lightly pigmented nodular lesions on the right labia minora and one of these was ulcerated. She was admitted and had an amputation of the cervix and an excision biopsy of the lesions from the vulva.

Macroscopic examination of the excised cervix showed a 0.8-cm pigmented nodule at the junction of vagina and cervix. This was the lesion initially biopsied. Microscopic examination showed an invasive tumour having features of a malignant melanoma. Cells were mixed spindle and epithelioid with a high mitotic rate. Tumour was invading the subepithelial tissue with a depth of 2.8 mm. There was a malignant junctional component suggesting that this was the primary origin for this tumour.

Both the lesions removed from the vulva showed features of malignant melanoma. The ulcerated one had a malignant junctional component suggesting a second primary which is unusual. The second lesion showed no junctional activity and was thought to be a metastatic deposit from one of the primary melanomas.

She was subsequently seen by the Dermatology Department. Examination of the skin and mucosa showed several benign pigmented lesions but no suspicious areas.

Metastases of malignant melanoma can involve the cervix uteri but a primary melanoma at this site is very rare. A worldwide search shows 27 previously reported cases. Primary melanomas are distinguished from secondaries by the presence of junctional activity. This case has the unusual features of two primary melanomas presenting at the same time.

In a series of 1250 patients reported by Pack *et al.*,<sup>1</sup> only 16 (1.3%) had multiple primaries presenting synchronously. Multiple malignant melanomas of the genital tract are even rarer. We could only find one other case<sup>2</sup> of a 71-year-old female with multiple primary melanomas of vulva, cervix and vagina.

Prognosis for patients with cervical melanoma is generally poor. Most patients succumb to the disease within 3 years of the diagnosis. Only two patients are reported to have lived longer than that. Both died of metastatic disease at 13 and 14 years.<sup>3</sup>

Due to the small number of cases there is no established treatment protocol. Most investigators recommend radical hysterectomy and possible node dissection. Both radiotherapy and chemotherapy have been tried but so far there is no documented survival benefit from any treatment method used alone or in combination.

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## Cigarette smoking in men may be a risk factor for increased severity of psoriasis of the extremities

SIR, Cigarette smoking in men is a risk factor for psoriasis;<sup>1,2</sup> however, little is known about the relation between cigarette smoking and psoriasis severity. We examined the relation between cigarette smoking and psoriasis severity among 68 consenting male inpatients (mean  $\pm$  standard error of the mean (SEM) age: 48.0  $\pm$  1.1 years; mean  $\pm$  SEM duration of psoriasis: 18.8  $\pm$  1.2 years) with moderate to severe plaque psoriasis. The patients were categorized into three groups according to: no cigarettes ( $n = 31$ ), 1-10 cigarettes ( $n = 11$ ) or > 10 cigarettes ( $n = 26$ ) smoked daily, over the 6 months previously. The possible confounding effect<sup>3</sup> of alcohol use over the 6 previous months, was examined and alcohol consumption was categorized into three groups of: no alcohol intake, < 80 g and  $\geq$  80 g daily, a threshold associated with a greater risk for psoriasis.<sup>3</sup> Dermatological ratings included the percentage total body surface area (TBSA) affected by psoriasis, and the severity of psoriasis (which was an index of the degree of scaling, erythema and plaque elevation) affecting individual body regions (the scalp, face, neck, shoulders, chest, right arm, forearm and hand, left arm, forearm and hand, back, abdomen, right hip, thigh, leg and foot, and, the left hip, thigh, leg, and foot) which was rated on an 11-point scale, with a rating of 0 denoting 'not at all', a rating of 1-3 denoting 'mild', a rating of 4-7 denoting 'moderate' and a rating of 8-10 denoting 'severe'.

Statistical analysis was carried out with three-way cross-tabulation tables for the individual body regions assessed, and Cochran-Mantel-Haenszel statistics were generated. The three-way tables analysed the relationship between smoking and psoriasis severity after controlling for the possible confounding effect of ethanol use. Psoriasis severity was categorized into three groups of 'low' (rating of 0-3), 'moderate' (rating of 4-7) and 'high' (rating of 8-10) severity for this analysis. The Mantel-Haenszel chi-square statistic was used to test the null hypothesis of no association versus the alternative hypothesis that there is a linear association between smoking and psoriasis severity.

Two sets of analyses were carried out because of the exploratory nature of the study. The first analysis involved all subjects. In the second analysis the relation between smoking and psoriasis severity was further examined within each subgroup of patients who had a particular body region affected (i.e. body regions rated as having a severity rating of 0 were excluded from the second analysis). The results of the first analysis indicated that the overall percentage TBSA  $\pm$  SEM affected by psoriasis (i.e. 55.2  $\pm$  4.3% versus 63.3  $\pm$  6.5%

versus  $56.5 \pm 5.8\%$ , respectively,  $P = 0.6$ ) was not significantly different between the three smoking groups. No patients had palmoplantar pustulosis.<sup>4</sup> However, consumption of  $> 10$  cigarettes daily was associated with significantly ( $P < 0.05$ ) greater psoriasis severity affecting both arms, forearms and hands. The results of the second analysis indicated that, among patients who had a body region affected by psoriasis, cigarette smoking, consisting of  $> 10$  cigarettes daily, was associated with a greater psoriasis severity of both forearms, hands and feet, i.e. the distal portions of the extremities were more severely affected. The mean  $\pm$  SEM psoriasis severity ratings affecting the distal body regions, that were significantly different from the three cigarette smoking categories, were as follows: right arm:  $5.6 \pm 1.8$  versus  $6.6 \pm 1.6$  versus  $6.7 \pm 2.0$ ,  $P = 0.01$ ; left arm:  $5.6 \pm 1.8$  versus  $6.6 \pm 1.4$  versus  $6.7 \pm 1.9$ ,  $P = 0.010$ ; right forearm:  $5.6 \pm 1.8$  versus  $6.7 \pm 1.5$  versus  $7.0 \pm 1.9$ ,  $P = 0.005$ ; left forearm:  $5.6 \pm 1.8$  versus  $6.6 \pm 1.5$  versus  $6.8 \pm 1.9$ ,  $P = 0.006$ ; right hand:  $4.9 \pm 2.4$  versus  $5.4 \pm 2.7$  versus  $7.3 \pm 2.0$ ,  $P = 0.003$ ; left hand:  $4.9 \pm 2.4$  versus  $5.8 \pm 2.7$  versus  $7.0 \pm 2.1$ ,  $P = 0.006$ ; right foot:  $4.5 \pm 2.4$  versus  $5.4 \pm 2.8$  versus  $6.8 \pm 2.2$ ,  $P = 0.033$ ; left foot:  $4.5 \pm 2.4$  versus  $5.4 \pm 2.8$  versus  $6.7 \pm 2.2$ ,  $P = 0.04$ .

Our analyses have used multiple (i.e. 21 body regions) measurements, and by chance alone (at  $P \leq 0.05$ ), one would expect only one or two of these 21 regions to show an effect of smoking on psoriasis severity. Furthermore, the six body regions also delineate a regional pattern involving the distal extremities. It is very unlikely, therefore, that our results represent a chance finding.

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#### Cutaneous metastases from a papillary thyroid carcinoma

SIR, Cutaneous metastases from primary thyroid carcinoma are rare.<sup>1</sup> As the natural history of thyroid cancer is one of slow progression skin metastases may be confused with other skin neoplasms such as basal cell carcinoma or with benign lesions such as epidermal and pilar cysts, particularly if occurring in the head and neck area. We describe a patient with known thyroid carcinoma who developed a lesion in the scalp several years after initial therapy.

A 70-year-old man presented with an enlarged thyroid gland and cervical lymphadenopathy. Total thyroidectomy and a left neck dissection was performed. Histology showed papillary thyroid carcinoma. He was treated with iodine<sup>131</sup> ablation and external beam radiotherapy. He remained disease-free for 3 years, when he developed a hard lump in the posterior triangle on the left side of the neck. Excision biopsy of this confirmed recurrent papillary thyroid carcinoma. No further action was taken. Two months later he developed a 1-cm nodular scalp lesion that was clinically thought to be a basal cell carcinoma. However, excision biopsy showed papillary thyroid carcinoma, confirmed by immunohistological demonstration of thyroglobulin. In view of the patient's age and poor general condition it was decided to manage him with thyroxine suppression alone. Three months later he developed a left hemiparesis, and a computerized tomography (CT) scan showed a parietal lesion thought to be a metastasis. No further active treatment was offered and the patient died peacefully 2 weeks later.

Cutaneous metastases from thyroid cancer are rare. Interestingly, when they do occur most skin metastases from thyroid cancer are found in the head and neck area, particularly the scalp.<sup>2–4</sup> The most frequent organ location of distant metastasis in many types of cancer appears to be the first capillary bed encountered by the circulating cells.<sup>5</sup> Scalp metastases from thyroid carcinoma originate from malignant cells migrating along the external carotid artery. Alternatively, tumour cells may be transmitted through the valveless vertebral venous system thereby bypassing the lungs.

The presence of skin metastases could signify a further step in the development of the malignant phenotype. It is consistent with the step-wise theory of tumorigenesis,<sup>6</sup> with the presence of skin metastases at the end of the spectrum expressing the full metastatic potential and hence occurring at the end of the patient's life. The duration of life from the appearance of the skin nodules, in patients with internal malignancies, to death averages about 3 months.<sup>7</sup> Thus it is a sign of poor prognosis. This is borne out by our case.

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