# Lesson of the Week

# The incidental malignant melanoma

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The value of the general medical examination in the early recognition of asymptomatic disease is now universally appreciated.[1] Yet in such schemes of examination the skin, the largest organ of the body and the one most readily accessible to direct inspection, is almost invariably neglected.[2] In the past year we have seen five patients in the skin department at this hospital in whom superficial malignant melanoma was diagnosed incidentally to the patient's presenting complaint. A further such patient was seen by the ear, nose, and throat department. We consider that a thorough examination of the skin is an essential part of the general medical examination and that it will lead to more cases of this potentially lethal tumour being recognised early and treated effectively.

**Examination of the skin should be included in every general medical examination; sometimes treatable malignant melanomas will be found**

## Case reports

*Case 1*—A 48 year old woman was referred with a fungal infection of the foot and a secondary toxic erythema of the trunk and limbs. On general examination she was found to have a deeply pigmented lesion 0·5 cm in diameter on her back which she said had been there all her life. Histological examination of the excised lesion confirmed the clinical diagnosis of superficial malignant melanoma.

*Case 2*—A 26 year old woman presented with a histiocytoma on the right thigh. On examination she was found also to have a deeply pigmented lesion on the back of the left calf, of which she was unaware. The lesion was excised and the clinical diagnosis of superficial malignant melanoma was confirmed histologically.

*Case 3*—An 80 year old blind woman was referred for treatment of a basal cell carcinoma on the chest. During examination of the rest of the skin she was noted to have a deeply pigmented lesion of variable hue and irregular contour on the left shin which was typical of a superficial malignant melanoma.

*Case 4*—A 65 year old man was referred with a basal cell carcinoma on the left side of the chest. An incidental finding on general examination of the skin was a superficial malignant melanoma on the right side of the chest, which had not been noticed by the patient. The diagnosis was confirmed histologically.

*Case 5*—A 44 year old woman was referred complaining of a widespread irritating rash. Examination of the skin showed the typical eruption of lichen planus. At the same time, however, a superficial malignant melanoma was found on her left ankle, a lesion which had given her no cause for concern. Histological examination of the excised lesion confirmed the diagnosis of malignant melanoma.

*Case 6*—A 70 year old man was admitted to the ear, nose, and throat department for direct laryngoscopy for investigation of hoarseness. During the routine preoperative examination a small pigmented lesion was noted behind the right ear. Alerted to the diagnosis of melanoma by a recent editorial in the *BMJ*,[3] the surgeon excised the lesion. The diagnosis of malignant melanoma was confirmed histologically. Laryngoscopy, performed under the same anaesthetic as the excision, showed no abnormality.

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## Comment

Malignant melanoma should no longer be regarded as rare. Reports from many parts of the world indicate that the incidence of malignant melanoma and its mortality rate have been rising faster than for any other malignancy, except in some countries for carcinoma of the bronchus, with an approximately doubling death rate over 15 years.[4] In the United Kingdom the annual mortality rate rose from 5·1 per 1 000 000 of population in 1950 to 10·2 per 1 000 000 in 1967.[5] In some areas the increase has been even more dramatic. In Arizona, for example, the incidence among the white population has shown a fourfold increase over a decade, from 6·5 per 100 000 of population in 1969 to 29 per 100 000 in 1978.[6]

It is now recognised that the prognosis in malignant melanoma may be related to the depth of penetration of the primary lesion into the dermis.[7] Lesions penetrating the dermis to a depth of less than 1·5 m have a five year survival of 89% whereas those penetrating to a depth exceeding 3 mm have a five year survival of only 55%. There is also an important distinction between the behaviour of the superficial spreading and the nodular types of melanoma.[8] The nodular malignant melanoma, with which most practitioners are familiar, has an essentially vertical growth phase from the beginning so that it rapidly penetrates deep into the dermis, metastasises at an early stage, and carries a generally poor outlook. The superficial spreading malignant melanoma has been described only relatively recently[8] but it is commoner than the nodular melanoma. Its biology differs from the nodular melanoma in that it has an initial radial growth phase within the epidermis and superficial dermis before vertical growth and nodule formation. Because of its limited initial vertical invasion diagnosis and surgical excision of these lesions during the radial growth phase carry an excellent chance of cure, and it is important that every doctor should be able to recognise asymptomatic lesions at this stage.

The superficial spreading malignant melanoma is barely palpable. It is distinguished by its irregular outline, often containing a single notch or indentation. It is varied in hue, so that many lesions are not black at all but an admixture of brown, black, blue, pink, and white. All the patients referred to here had this form of malignant melanoma, which was diagnosed incidentally to their presenting complaint.

Although public awareness of the need to report any pigmented lesion which enlarges or changes in colour is to be encouraged, it should be remembered that malignant melanomas commonly arise in areas, such as the back, which are not readily amenable to self examination. Thus examination of the skin should be regarded as an essential part of the general medical examination. As illustrated by case 6, the diagnosis of malignant melanoma does not require any unique dermatological expertise. Furthermore, the limited penetration of the lesion

into the dermis in our patients should indicate a good long term prognosis.

We thank Mr J N Thomas, consultant ear, nose, and throat surgeon, King's College Hospital, for allowing us to report case 6.

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# *Letter from . . . Chicago*

## Science and the egg

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Sir Thomas Browne, musing about the thousand doors that lead to death, could hardly have foreseen that someday the roads to being born would become almost as diverse. Nor could he have reckoned with the progress of science when, as a young man, he vainly wished we might procreate like trees, without conjunction. An imaginative man, he might have found nothing surprising about maintaining seemingly inanimate people alive with bellows blowing air into their lungs—though he might have questioned why on earth one would go on for so long. He might have also wondered at the size of these modern bellows, the flashing lights and buzzing sounds, and the confusing mathematical formulations and mysterious acronyms. But not in his wildest dreams might he have foreseen that a body thus maintained on a respirator could be delivered of a live baby, that in fact the uterus would be used as an incubator. Yet within the past two years two babies were delivered by caesarean section from women declared legally brain dead but kept "alive" for up to 64 days. The babies turned out to be healthy, weighing about 1500 g each, and left at least one of the fathers with mixed feelings at "having lost a wife but gained a son."

Even more amazing to the good doctor would have been in vitro fertilisation, first developed in England in 1978. Already the 4 year old Louise Brown is the head of a clan of almost 200 test tube babies, including five sets of twins, the first born in Melbourne in 1971. This year the first American set arrived in Sea Cliff, New Jersey, and now the test tube stork has brought happiness and twins to a couple in the Chicago area after nine lean sterile years. Some 20% of American couples are considered to be infertile, often because of blocked ovarian tubes or low sperm counts, and some 5% of these may well be helped by fertilisation in glass. As each attempt to fertilise an ovum carries only a 10% chance of success, this procedure is costly, time consuming, and disruptive for couples having to move near a specialised centre. It is also fraught with potential legal problems and ethical dilemmas. In the past the waiting lists have been long, sometimes up to two years, but now more centres capable of carrying out the procedure are being established, including two in Chicago. Further hope comes from the recent Australian attempt to freeze embryos in liquid nitrogen, so that a second embryo may be implanted should the first be rejected.

The other technique, though less dramatic, might still have pleased the young Thomas Browne, though seemingly adapted from the veterinary sciences rather than from botany and the study of trees. Yet straight artificial insemination of foster mothers, so-called "rent a womb," has also given rise to considerable ethical and legal problems, especially since the intrusion of the profit motive and commercialism. Several agencies now advertise, offer colourful albums of pretty potential mothers, and charge some $25 000—of which the surrogate mother keeps $10 000 and the rest goes for medical expenses plus profit. Some 70 surrogate births have taken place in the past eight years, and demand is increasing because abortion and contraceptives have reduced the number of babies for adoption. Yet surrogate motherhood has remained an essentially unregulated trade, and I have already reported earlier (23 January 1982, p 260) such problems as a mother wanting to keep the baby.

This year the baby of a surrogate mother, born microcephalic and possibly mentally deficient, ended up unclaimed in a foster home as both parents refused to accept it. At the time, the analogy to what in the business world would be termed "damaged goods" did not go unnoticed. The newspapers further reported that the father had refused consent for giving antibiotics, or at least for lumbar puncture, and later also denied being the father and refused to pay the $10 000. As the story unfolded we learnt that this New York man had arranged through a Kentucky attorney to have a Michigan woman bear his child, apparently to strengthen his own marriage. Indeed his wife had picked the surrogate mother from an album. Considerable publicity surrounded the case as the surrogate mother maintained that she had been examined by a doctor before the insemination and told she was not pregnant. Moreover, she said that she and her husband had abstained from intercourse for the prescribed 30 days before the insemination. But the blood tests then showed that the baby had blood group O and the New York man was AB, which was just as well for the man because by that time his marriage had broken up anyway. Further tests showed that the real father was indeed the surrogate mother's husband. The baby, which was doing

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