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- No letter should be more than 400 words.
- For letters on scientific subjects we normally reserve our correspondence columns for those relating to issues discussed recently (within six weeks) in the *BMJ*.
- We do not routinely acknowledge letters. Please send a stamped addressed envelope if you would like an acknowledgment.
- Because we receive many more letters than we can publish we may shorten those we do print, particularly when we receive several on the same subject.

## Effects of discrimination on careers of British medical graduates

SIR,—Racial discrimination is widely acknowledged, at least among ethnic minority groups, as a hindrance to the career aspirations of graduates from ethnic minorities, and anecdotes abound. Dr P M McKeigue and colleagues showed that the main block to British graduates from ethnic minorities is at the shortlisting stage, and not at interview.<sup>1</sup> I now begin to understand why, despite much success at interview in my medical career to date, I was once almost reduced to despair when about 25 applications for senior house officer posts and locums went either unacknowledged or without offer of interview. Finally, anecdotes once shrugged off as unbelievable are given credence—for example, the one of a consultant who reputedly instructed the personnel department to stop shortlisting candidates with foreign names.

The main danger of discrimination is an indirect one: that those discriminated against will not strive to achieve their ambitions and will turn to less competitive specialties. Well meaning seniors do advise doctors from ethnic minorities (and women doctors) to change career direction, and usually such advice is gratefully received. However, a self fulfilling prophecy can easily be created. The expectation of racial discrimination has been the main reason for the emigration of several doctors I know. It was pleasing, therefore, that on graduation the graduates from ethnic minorities studied by Dr McKeigue and colleagues were as likely to aspire to careers in "oversubscribed" specialties as their colleagues of native European origin. The greater perception of poor career prospects among those from ethnic minorities and the difficulty they found in obtaining suitable senior officer posts in accord with the imbalance in the ethnicity of doctors in all specialties.

The survey by Dr McKeigue and colleagues could have underestimated or overestimated discrimination. Respondents may be survivors of the system. Those who emigrate or leave the profession may be less successful at negotiating the effects of discrimination and be less likely to respond to the survey invitation. Alternatively, those with grievances may be more likely to respond. Further details of the survey methods would be helpful in its interpretation.

On moral and pragmatic grounds discrimination on the basis of gender, race, and ethnicity is unacceptable, though often it has to be tolerated. It would be good for the image and morale of doctors if we could state that, in this case, the medical

profession does not mirror society but endeavours to lead it towards an ideal.

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1 McKeigue PM, Richards JDM, Richards P. Effects of discrimination by sex and race on the early careers of British medical graduates during 1981-7. *BMJ* 1990;301:961-4. (27 October.)

## Skin grafts for burns

SIR,—Dr Jagdeep Nanchahal and Mr Dai Davies propose that banked keratinocyte allografts could be used in combination with a dermal equivalent for immediate wound coverage in burns.<sup>1</sup> Before we accept this as feasible in non-immunosuppressed recipients we must know that keratinocyte allografts are not subject to acute rejection.

There are difficulties in evaluating the fate of keratinocyte allografts in the clinical setting. When a Y probe was used as a marker keratinocyte allografts were found not to survive one week after transplantation,<sup>2</sup> but it was not clear whether the grafts failed to take or were rejected. The study that claimed that allogeneic keratinocytes on a dermal equivalent were not acutely rejected provided no biological evidence of allograft survival.<sup>3</sup>

The weight of evidence from studies in experimental animals provides few grounds for optimism. Studies in rats have clearly documented acute rejection of keratinocyte allografts only a few days later than full thickness skin grafts.<sup>4</sup> In our own studies in pigs, keratinocyte allografts formed an epidermis on full thickness wounds, but although these rejected more slowly than split skin allografts (by day 7), keratinocyte graft loss and ulceration occurred after 14 days (unpublished data). This also occurred in humans, resulting in ulceration at the allograft site and delayed wound healing.<sup>5</sup> It is hard to see how the interposition of a dermal substitute would alter the rejection process.

There are further problems with the use of composite cultures. Breakdown of the collagen dermal equivalent causes graft loss,<sup>6</sup> and the expansion ratio is less than that achieved with simple keratinocyte grafts.<sup>7</sup>

The suggestion is made that the allograft may be gradually replaced by host epidermal cells. This has been reported on partial thickness wounds<sup>8</sup> where epidermal remnants persist and was suggested to have occurred from the edge of small full thickness wounds where acute rejection of keratinocyte allograft was not observed.<sup>3</sup> In extensive full thickness burns, however, for which this technique is proposed, the wound edge is distant and no epidermal appendages remain, making gradual replacement of allograft impossible.

It has also been proposed that keratinocyte allografts act as elaborate dressings.<sup>2</sup> This would necessitate further procedures and delay to achieve skin replacement. Keratinocyte allografts therefore do not in our opinion offer an immediate prospect of satisfactory burn wound coverage.

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- 1 Nanchahal J, Davies D. Cultured composite skin grafts for burns. *BMJ* 1990;301:1342-3. (15 December.)
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- 3 Nanchahal J, Otto WR, Dover R, Dhital SK. Cultured composite skin grafts: biological cultured skin equivalents permitting massive expansion. *Lancet* 1989;ii:191-3.
- 4 Fabre JW, Cullen PR. Rejection of cultured keratinocyte allografts in the rat. *Transplantation* 1989;48:306-15.
- 5 Aubock J, Irshik E, Romani N, et al. Rejection after slightly prolonged survival time of Langerhans cell-free allogeneic cultured epidermis used for wound coverage in humans. *Transplantation* 1988;45:730-7.
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## Renal artery stenosis

SIR,—Glomerular filtration rate and serum creatinine concentration have a well defined and important relation in which the two values do not necessarily equate with one another. With a reduction in glomerular filtration rate of 50% a creatinine estimation will often be normal.<sup>1</sup> By the same token, a high value may already indicate a substantial loss of kidney function. The conclusion of Dr A H Choudhri and colleagues<sup>2</sup> that normal renal function does not preclude appreciable renal artery stenosis is therefore erroneous as they have not measured it with sufficient sensitivity.

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- 1 De Wardener HE. Tests of glomerular function and proteinuria. In: *The kidney*. 5th ed. New York: Churchill Livingstone, 1985.
- 2 Choudhri AH, Cleland JGF, Rowlands PC, Tran TL, McCarty M, Al-Kutoubi MAO. Unsuspected renal artery stenosis in peripheral vascular disease. *BMJ* 1990;301:1197-8. (24 November.)