advanced degree could be killed on the spot by such a manoeuvre.—I am, etc.,

Lochmaddy,
Isle of North Uist. ALEX. J. MACLEOD.

SIR,—Since the TV programme in "Medicine Today" on cervical disc lesions represented my views, a number of doctors have inquired if I was also the author of the expository paper entitled "Pain in the Neck and Arm" (2 March, p. 563).

I hasten to assure readers that it was not from my pen.—I am, etc.,

London W.1. JAMES CYRIAX.

Pulmonary Function in Asthma

SIR,—Drs. P. Meisner and P. Hugh-Jones report (24 February, p. 470) a normal transfer factor in asthmatic patients with severe airways obstruction. This is an observation of considerable practical importance and one which we are able to confirm from our experience in this unit. Fifty-six patients (26 female, 30 male, average age 43) have been referred to our laboratory during the last three years with a clinical diagnosis of bronchial asthma. The transfer factor (CO single-breath method) was reduced in only four of these patients. It will be seen in Table I that, as in the patients studied by Drs. Meisner and Hugh-Jones, the transfer

patients referred with airways obstruction due to causes other than asthma. Indeed, the only other condition in which a high value has been consistently found is congenital heart disease associated with increased pulmonary blood flow due to a left to right shunt. Drs. Meisner and Hugh-Jones did not comment upon this point in their own paper, but it will be seen in their Fig. 2 that 17 of 24 readings for transfer factor (expressed as T_L/V_A) were greater than 100% of predicted normal. A high transfer factor may thus be found in asthmatics regardless of which formula is used for predicting normal values; Drs. Meisner and Hugh-Jones used the formula of Hamer, Cotes, and Meade for men and Newman's formula for women, while we used our own formula.

It is not clear why some patients with asthma should have a raised transfer factor, although it is known that an imbalance between ventilation and perfusion can sometimes give erroneously high values. Be that as it may, there can be little doubt that the transfer factor has a place in the assessment of a patient with airways obstruction. The almost invariable finding of a reduced transfer factor among patients with emphysema in this laboratory and elsewhere and the finding of a normal or increased transfer factor in asthma indicate the value of this measurement. It seems reasonable to conclude from the evidence so far available that a diagnosis of uncomplicated asthma is virtu-

ally excluded by the finding of a reduced transfer factor and confirmed if there is an abnormally high value in the presence of airways obstruction.—I am, etc.,

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Corticosteroids and Rosacea

SIR,—My colleague, Dr. Ian B. Sneddon (2 March, p. 579), gives a timely warning regarding the use of corticosteroid creams in the treatment of rosacea, and draws attention to the telangiectasia which these produce, and the severe pustulation which erupts on ceasing this therapy.

In this department many such cases have been seen, caused by various of these preparations, so that a "spot diagnosis" can be made before the history is taken. Frequently the papulo-pustular lesions involve not only the usual rosacea distribution but also the eyelids, scalp, and neck. Neither the telangiectasia nor the pustulation has been observed in patients treated with steroid creams or lotions containing sulphur or a quinoline derivative.—I am, etc.,

G. A. G. PETERKIN.

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TABLE I

Forced Exp. Volume (1 sec.)	Mean F.E.V. ₁ (l.)	Mean Alv. Volume (l.)	Mean Transfer Factor (% Normal)
Group I Less than 1 litre (14 pts) ..	0.68	5.1	102
Group II 1-1.5 litres (12 pts) ..	1.21	5.7	113
Group III More than 1.5 litres (30 pts)	2.40	5.8	105

factor was normal even in those with gross impairment of the F.E.V.₁ (Group I) and there was no real difference between the transfer factor for this group and for Group III, in which the mean value for F.E.V.₁ was more than three times greater. These relationships were independent of alveolar volume, which was similar at all levels of F.E.V.₁.

Of even greater interest is the observation that the transfer factor may actually be raised in asthma (Table II). In 33 of our 56

TABLE II

Transfer Factor (% Normal)	No. of Patients	% of Patients
Over 130	11	20
101-130	22	40
71-100	19	33
60-70	4	7

patients (60%) the transfer factor was more than 100% of the predicted normal value and in 11 patients (20%) it was above the upper limit of the normal range (over 130% predicted normal). In this laboratory an abnormally high transfer factor has not been observed among the several hundreds of

Twelve-lead Electrocardiogram

SIR,—The standard electrocardiogram has developed over the years by a series of accidents and circumstances. Today, for better or for worse, the twelve-lead electrocardiogram is widely accepted as the standard recording. It is difficult to find much published critical evidence in support of this standard. It is not universally approved. The seven-lead

electrocardiogram has many advantages.^{1,2} There is no doubt that many students and even postgraduates find the mastering of interpretation of the twelve-lead electrocardiogram a confusing and wearisome task.

In some degree this difficulty may be caused by the methods of displaying the twelve leads, which are neat but do not lend