With regard to treatment chronic venous ulcers may be divided into two categories: those (60%) that respond well to treatment and those (40%) that do not. In those that respond well the ulcer develops above a cushion of dilated veins one of which is usually but not necessarily a perforating vein. Once these veins have been eliminated by compression, injection, or surgery the ulcer heals spontaneously or more rapidly with a partial thickness skin graft. This skin graft should remain supported by adequate elasticated compression from the toes to the knee at all times when the leg is dependent postoperatively and should be continued indefinitely.

In ulcers that do not respond well the dependence on dilated veins is not evident and the main pathophysiological factor is severe dysfunction of the calf muscle pump. This in turn results from several factors occurring in various combinations. They are: an increased number of incompetent communicating veins; varicosities of both long and short saphenous veins; a restricted range of movement at the ankle and metatarsal joints; and a "chronic compartment syndrome" due to the induration of epifascial tissues. The treatment of choice is the improvement of the muscle pump effect by a subfascial operation ligating incompetent perforating veins combined with skin grafting of the ulcer.

Less often the cause of non-healing is mycotic infection, a lowered resistance to infection by the patient, or arterial insufficiency. More rarely ulcers may be of tuberculous or syphilitic origin or a complication of systemic diseases such as ulcerative colitis. It should also be borne in mind that malignancy can occur in long standing ulcers and that a biopsy should therefore be performed whenever there is doubt about the diagnosis.

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Impressions of Medicine in India

A doctor's lot

TESSA RICHARDS

Medicine is an attractive career in India; a doctor has the potential to earn a good salary and the profession is generally held in high esteem. And, unlike Britain, where exhaustive media coverage of matters medical has resulted in an aware and at times demanding public, medicine in India remains mysterious—which if not necessarily in the patients' best interests is often in the best interest of the profession. But all is not a bed of roses, and as the pool of trained doctors grows and as it becomes harder to find work in former outlets such as America and England competition in the urban areas (and few want to go to a rural area) is intense and unemployment a reality. Furthermore, the system of job allocation and promotion is such that career prospects (irrespective of merit) are a good deal more equal for some than for others.

Getting a foothold

The road ahead is tough for newly qualified graduates. If they fail to gain a place on a postgraduate training rotation or an appointment in the state government or central government services—and only a minority do—they must either opt for hospital attachments, jobs for which they actually have to pay a monthly stipend, or try to find a niche in the private sector. For many this means a job as a house officer in either a large private hospital or a small private nursing home or clinic. I talked to one young doctor in his room in one of the larger private hospitals in Bombay. The room was small and shabby, not dissimilar to the average on call room in Britain, but he had to share it with two other doctors. Furthermore, he had slept in it every night over the last three weeks because he had no official time off, cover being arranged on an ad hoc basis. His pay was half that for the equivalent job in a state hospital, which made it less than that of the sweepers and liftmen. But the poor salary and accommodation, and long working hours would be acceptable (for in this respect junior jobs in the private sector are not that much worse than state hospital posts) if the posts were "recognised" to give suitable

experience for specialist training. Unfortunately most are not, so these jobs may be little more than a salaried road to nowhere providing a somewhat arbitrary amount of clinical experience and responsibility.

Most doctors mark time in these jobs and try to get accepted on to a postgraduate training scheme or into state government service. This may take years and not all succeed; meanwhile their colleagues who got on to a training scheme straight away will have their postgraduate degrees under their belts within three years. Nevertheless, doctors are willing to take these posts because it keeps them in pocket, in the city, in the swing of things, and provides the opportunity to study for the all precious postgraduate degree.

Those who decide to try to go it alone in private practice either before or after one or two posts in the private sector may fare even less well. Renting a room in a polyclinic or buying suitable premises is extremely expensive and a daunting prospect for a newly qualified doctor with no money, no reputation, and no specialist skill to sell. Making ends meet is difficult and many obtain loans which take years to repay. Indeed, even well qualified doctors may take years to get established, and I was told that in some urban areas a new doctor may have to buy his way into the system by giving the local syndicate of practitioners a percentage of his earnings (in return for them sending him patients) until he is finally accepted into the fold. Such rake offs or backhanders are commonplace, and indeed any referral of patients from doctor A to doctor B in the private sector may entail money changing hands.

Competition in practice is, therefore, intense and comes not only from other doctors for there are a large number of traditional healers, registered medical practitioners, and all variety of quacks, all of whom may prescribe western medicines in addition to their own remedies. Inappropriate prescribing is commonplace; indeed, provided the patient can pronounce or spell the name of a drug he or she can usually just buy it over the counter.

General practice a neglected specialty?

Doctors in the public eye need to be seen as specialist in some aspect of medicine—even though most doctors in private practice end up seeing a broad range of patients. There is no free state system of general practice in India, and the concept of family medicine is not a familiar one. Undergraduate and postgraduate training make little concession to the specialty, and there is no such thing as a GP training scheme.

One enterprising private practitioner I met had brought out what he believed was the first guide for general practitioners in India.¹ He started off some 20 years ago giving open lectures after his evening surgery to batches of students who were approaching their finals. It must be much to his credit as a lecturer—as well as to the subject matter—that his lectures, which ran from 9 pm to 4 am, were enthusiastically attended. The demand grew and he ended up giving the same lectures all over India. It seemed that a gap in established

teaching had been exposed and these down to earth practical books are a salutary read. They do not attempt to dictate a Western style of practice, and the power of placebo mixtures and colourful injections is acknowledged in dealing with a public that fervently believes in their healing powers.

Climbing the hospital ladder

Once a doctor has obtained a postgraduate degree he or she may enter the competitive jungle of urban private practice, go abroad, continue in state or central government service, or attempt to get a post as a faculty member in one of the teaching hospitals. The latter are highly sought after because a position as a faculty member in the local teaching hospital increases earnings in private practice by virtue of the professional respectability that it carries and the fact that the doctor has access to the hospital's free facilities and specialist skills. Competition to get on the lowest rung of the permanent teaching hospital staff is, therefore, fierce and, once more, who you know is at least as important as academic ability. As I have emphasised in this series, influence with local politicians is the most effective lever to achieving anything in India and this is as true for medicine as any other walk of life. It is, however, a bitter truth for the idealistic and bright young doctor who gets passed over in favour of one who is unequivocally less able.

Once a doctor has moved mountains and got the hospital position that he desires (usually at the level of a lecturer) I was astonished to hear that promotion is automatic and depends purely on seniority. Neither clinical skills nor academic ability seem to enter into it, thus while you wait for your senior colleague to retire (at 58) or drop dead, there is no great incentive to keep up to date take your teaching commitments seriously, do research, or publish articles. That many doctors do so is a great tribute to their individual integrity and enthusiasm. That academic ability may not even be rewarded by professional recognition is a sad fact illustrated by an anecdote from one doctor who said that recently a prestigious national award for research was given to a professor who was widely acknowledged to have done little or no research (nor had his department) for well over 10 years. Once again it appeared that influence in the right quarters had proved stronger than an appreciation of real worth.

But to speak out against the system may court disaster. One young professor I met had had his professional reputation torn to shreds in the local newspaper within 24 hours of voicing his misgivings about the promotion of a dubious candidate to a position of (in his view) unjustified seniority. (This story serves to illustrate what appears to be working in a basic tenet of the state or central government system: accept the status quo or get out—a state of affairs that clearly makes major change of any sort difficult or impossible to achieve.)

Another contentious issue in the muddy promotional waters of state and central government services is the special reservation (which operates in some but apparently not all hospitals) of faculty posts for doctors belonging to scheduled castes or tribes. These constitute 14.6% and 6.9% respectively of the total population but only a very small percentage of doctors, who largely come from the higher social echelons. Thus there is relatively little competition for the reserved posts and this, I was told, results in doctors of low ability getting promoted years ahead of their peers.

Overwhelming work loads

Almost all doctors who are allowed to work in private practice do so and in recognition of this the full time hours in many state hospitals are from about 8 00 am to 1 30 pm. This means that in the morning most departments are frantically busy with outpatient departments bursting at the seams. It is not uncommon to see a doctor sitting in a small room surrounded by 20 or so patients all fighting to get attention at the same time—or a larger room where five doctors conduct their outpatients en masse and try to teach students at the same time. But it is not just the numbers of patients

FIG 1—Competition for the Western trained doctor, a practitioner of Indian medicine explains his approach to abdominal pain.
(photograph by kind permission of David Hoffman).

that are daunting. The variation in the type of cases that present are immense because the patients refer themselves and the outpatient departments have to provide both GP care and specialist advice.

The task of sorting complaints is usually left to a non-medical clerk so it is not uncommon to see a pot pourri of surgical, gynaecological, and psychological problems in the general medical clinics and vice versa. My immediate reaction on seeing such a clinic was that after three hours (and maybe a hundred or more patients) I would be a nervous wreck. But staff cope—they have to—and so do their patients, who cannot expect confidentiality, privacy, or more than a few minutes of the doctor's time. After outpatients there are ward rounds, teaching commitments, and all the other activities of a busy teaching hospital to be fitted in. Nevertheless, after 1.30 pm hospitals are uncannily quiet, corridors deserted as senior staff make their way to their orderly clinics in the private sector, leaving the junior staff to provide cover.

Working in a busy state hospital may have tremendous rewards: a vast and varied clinical workload and plenty of opportunity to practise clinical skills on largely grateful and undemanding patients. But the frustrations may be equally immense: numbers of patients far exceeding bed space, inadequate facilities, and poor ancillary staff. Even simple things that we in Britain take for granted, such as clean dressings, bedclothes, basic drugs, intravenous fluids, may be unobtainable. Laboratory investigations are limited and not necessarily reliable and radiological investigations often stymied by a shortage of x ray plates. Even in the operating theatre I was told that a surgeon may find that he has to carry out an operation with unreliable instruments or without the proper instruments at all because these are "unavailable," perhaps because of lack of funds, perhaps because of poor maintenance, or even because they have been hived off and sold on the black market.

Private practice seen as essential

Few doctors in India think that it is wrong to do private practice for the basic salary of an assistant professor in state government service (and a doctor may stay at this grade for the whole of his or her professional life) is about 1500-2000 rupees a month, which as one professor put it, "leaves us struggling to be middle class." To get a perspective on this salary it is worth noting that a new car costs about 100 000 rupees, a child's school fees 1200 per annum, and (a figure I could relate to well) a good sari 1000 rupees. So without income from private practice (or private means) it is virtually impossible for doctors to run a car, rent or buy a house, support and educate their children adequately, marry off their daughters (dowries are expensive, especially if you want to arrange a marriage with an eligible young doctor), look after elderly relatives, which is a cultural must, or—to my chagrin—subscribe to the *BMJ*, which costs half the month's salary. One young consultant I talked to said that he would like to give up his private practice—private patients (as everyone knows) were demanding and he wanted to spend more time in the hospital, especially on his research projects—but the only way he could envisage doing so would be in the unlikely event of the state trebling his salary overnight.

Not all state teaching hospitals permit private practice, nor is it allowed in the centrally run hospitals. Doctors who are employees of the central government do get slightly higher salaries than state employees and both may receive a non-practising allowance, but this is scarcely generous and does not compensate for the money that may be made in private practice. This, of course, is very variable but I was quoted figures ranging from 10 000 to 200 000 rupees/month.

In acknowledgment that the state and central government salaries are low some teaching hospitals allow their senior staff to go on a "sabbatical" every five years or so. In effect this may be arranged so that they can go, for example, to the Middle East and amass some money. The sad thing about this arrangement is that they may fail to return.

Some teaching hospitals have "honorary" professorial appointments where the consultant works for three hours a day (and draws no salary for it) and spends the remainder of his time in private practice. These positions have been filled by some of the most

FIG 2—Cigarettes sell well: would a media campaign on health do likewise?

enterprising and able doctors, who have combined successful private practice with a positive clinical, academic, and teaching input (often well in excess of the minimum hours) into the teaching hospital. But because they occupy scarce professorial chairs and obviously earn so much more than their full time non-practising colleagues these appointments have caused a lot of resentment, and many are scheduled to disappear.

Moving problems

Low salary is not the only problem to contend with in state and central government service, for even senior doctors may be moved around at regular intervals. Moving within a state and often between rather disparate jobs is bad enough but moving from state to state, as central government employees may do, adds another dimension to the problem. For example, one senior consultant surgeon I met, who worked for the railways, had been moved seven times in 13 years. His children were now completely disorientated for obviously each such move may entail getting to grips with a new language and to a certain extent a new way of life.

All this adds up to far from satisfactory circumstances for doctors in the state and central government services—especially for those with no opportunity for private practice. Many, some would argue the majority of good doctors leave public service as soon as they are sufficiently qualified and skilled to set up on their own in private practice and this may widen the gap between the medical services for the rich and those for the poor. Doctors who stay on and combine a public sector commitment with practice may not give of their best because private work may take priority. Teaching hospitals are continually losing their brightest stars, and this may be a contributory factor to the much talked about decline in teaching and academic standards.

No shortage of private enterprise

The gulf between the working environment and facilities in the state hospitals and those in the top private hospitals is large. But not all doctors who opt for the private sector run Harley Street equivalents. In fact such practice is probably confined to an elite highly paid few. Most doctors seek to provide a good standard of consultation and inpatient care at a reasonable price. Many waive fees or scale them right down for patients who can clearly afford very little. The fact that even the very poor often spend their last rupee and get hopelessly in debt by going to see a doctor privately is a sad reflection on their lack of faith in the "free" government run services on offer.

Many doctors play a part in the large voluntary medical sector in India, but perhaps where Indian doctors most excel is in private enterprise, whether it is setting up a special service such as teaching seminars for general practitioners or establishing a showpiece specialist hospital. And no medical traveller in India could fail to be impressed by the pioneer rural health projects (of which a number of independent ones have been set up), although they may well ask themselves why the existing services fall such a long way behind what may be achieved with similar resources.

One of the best examples of individual enterprise that I saw was the Aravind Eye Hospital near Madurai in Tamil Nadu. The hospital was established in 1976 by Dr G Venkataswamy, a retired consultant ophthalmologist, and provides specialist eye care for a district of about 5 million people. It is non-profit making and care is free for over half the patients, among whom the main cause of blindness is nutritional, attributed to a mixture of vitamin A and protein deficiency. Much of the work entails removing cataracts, and the high standard of practice in both the hospital and the mobile eye camps that it runs attracts ophthalmologists from all over the world.

Dr Venkataswamy's views were interesting: "We don't want your (the West's) money, nor your doctors, but we do need your managerial skills," he said. His belief was that the state medical services in India are badly managed. Far too much money was spent on buying CT scanners and other expensive equipment, in an attempt to provide the same facilities that are on offer at the top private hospitals, and no priority was given to basic health care. India should invest in some really good health care administrators and some skilled media men. It might then be possible to sell primary health care successfully; after all, vigorous advertising had enabled a well known tobacco company to sell 10 billion rupees worth of ill health in the form of cigarettes.

Plans, problems, and the future

It was a challenging suggestion and one that, in spirit, accorded with the views of several doctors that I met. Nevertheless, the problems of organising coordinated primary health care programmes in a state (let alone the country as a whole) are considerable and the failure of some state health departments to ensure that existing programmes are implemented fully is, no doubt, more than a function of what was described to me as their lack of commitment.

What is the scientific basis for refusing to take a blood donation from a person with a blood pressure of 170/100?

Health screening procedures before blood donation are designed to ensure that so far as possible no harm will come to either the donor or the recipient of the blood. The donor must therefore appear to be physically fit and well. Blood pressures of 170/100 merely border on the range regarded as indicative of hypertension. Your questioner rightly challenges the scientific validity of rejecting donors at this level. Rejection of such donors results in anxiety to themselves and inconvenience to their general practitioners since subsequent blood pressure readings are so frequently normal. Hypertension is, however, regarded as an underdiagnosed condition. At pressures exceeding this value it has been considered that investigation is justified and that considerably increased morbidity is likely.¹ The risks associated with a blood pressure of 170/100 are not likely to be perceptibly different from that of the normal population, but figures of this order have become accepted as the cut off point above which the diagnosis of hypertension is considered. Voluntary blood donation from people with pressures up to 200/100 has, in fact, not been shown to be associated with any increased rate of donor complications.² Few donors experience transient episodes of profound hypotension after donation. If this were to occur in the presence of the cerebrovascular or coronary disease that is associated with hypertension serious ischaemia could result. In general, therefore, the risks of such mishaps will probably increase with the severity of hypertension. It seems best, so far as the safety of volunteer donors is concerned, to err on the side of caution. Donors carried

Awareness of the needs and priorities of the consumer are obviously crucial to the success of any programme health or otherwise. (A point well illustrated by the example I heard where one state had effected a dramatic increase in school attendance—from abysmal figures to over the 90% level—simply by providing the children with a midday meal.) Enlisting the help of local people who the villagers trust is another important factor and one which those running independent rural health care projects were quick to point out.

Apparently independent rural health care projects (in common with the private medical institutions) are usually welcomed by state government health departments—even though their success may risk showing existing government schemes in a less than favourable light. But one doctor I talked to had, for "various reasons," had his scheme effectively closed by state health officials (despite excellent health statistics in the area concerned). The situation sounded complex and doubtless many issues were at stake but whatever the nature of the problems it seems true to say that excellent projects may generate little more than local interest and no appreciable pressure for change—possibly because there is no good forum where the work may be discussed and disseminated and few publish their results where they may be read widely.

Another problem seems to be the fact, or at least the feeling, that whatever the ideals, aspirations, and achievements of an individual or group of individuals "the system" is opposed to change and it is almost impossible to make an impact. Being largely unaware of what constitutes "the system" or indeed the ramifications of officialdom behind the medical services it was hard to relate to this point of view but I could not but be saddened by tales of dissatisfaction and disillusionment, especially among doctors working in the public sector, and the open admission that corruption is no stranger to medicine. Some believed that the change of government augured well for the future and that the prospects for better health for the people (and the profession) were round the corner. Many were less sure and I can only hope that the view of one young registrar in central government service was wholly unrepresentative "Things have to get better," he said. Why? "simply because I cannot envisage them being worse."

Reference

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away by ambulance make for extremely bad publicity for the National Blood Transfusion Service.—J A F NAPIER, director, Welsh Regional Blood Transfusion Service, Cardiff.

- 1 Coope J. Hypertension in general practice: what is to be done? *Br Med J* 1984;288:880-1.
- 2 Tomasulo PA et al. A study of criteria for blood donor referral. *Transfusion* 1980;20:511-8.

If a woman does not experience withdrawal bleeding when taking the combined contraceptive pill should the pill be stopped?

Absence of withdrawal bleeding in women taking the combined contraceptive pill is common and is not an indication for discontinuing the preparation. Excluding pregnancy is, however, a reasonable precaution.—G J LEWIS, consultant gynaecologist, Stourbridge.

Correction

Fluid intake during marathon type races

The first sentence to this answer to an Any Questions (30 March, p 988) should read: "The volume of fluid lost by perspiration and evaporation during marathon racing obviously depends on the ambient temperature but may amount to 20% of body weight (around 15 l for someone weighing 70 kg)."