Teaching laparoscopic surgery

Practise on live animals is illegal

EDITOR,—There is increasing pressure on the royal colleges to introduce some form of accreditation and assessment of practical skills in minimally invasive surgery. This is partly driven by attention in the media to cases that have had an unfavourable outcome. There has never, however, been a demand for such accreditation in general surgical skills. Theoretically, a doctor who has never performed surgery can obtain a fellowship of the Royal College of Surgeons or membership of the Royal College of Obstetricians and Gynaecologists. Yet there are no calls for assessment of the technical competence of general surgeons or gynaecologists. Perhaps it would be more appropriate if assessment of technical skill in surgical specialties generally, rather than just in innovations such as minimally invasive surgery, was addressed.

C M S Royston and colleagues discuss different modes of training in laparoscopic surgery and suggest that the porcine model is useful.¹ They do not make clear that performing laparoscopic procedures on living models is illegal in Britain. Thousands of novice laparoscopists have attended hands on courses in Britain and have carried out advanced procedures on patients, albeit under the supervision of an experienced tutor. It is ironic that the law is less protective of patients than animals when it comes to learning new surgical skills.

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1 Royston CMS, Lansdown MRJ, Brough WA. Teaching laparoscopic surgery: the need for guidelines. *BMJ* 1994;308:1023-5. (16 April.)

Training courses are popular and valuable

EDITOR,—The proved advantages of laparoscopic cholecystectomy have put considerable pressure on the surgical community to learn new techniques.¹ Reports of high complication rates,^{2,3} however, have suggested that the training and evaluation of laparoscopic general surgeons need urgent attention.^{4,5} To address these important issues a practical training course was devised, based on laparoscopic repair of a hernia, and participants were invited to evaluate it. We also invited suggestions on ways of ensuring adequate training of future laparoscopic surgeons. Repair of an inguinal hernia was selected as the ideal model for teaching advanced procedures to experienced laparoscopic surgeons both because standard laparoscopic techniques are used and because anatomy as seen through an endoscope, stapling techniques, and the handling of prostheses must be learnt.

Twenty three surgeons attended the two day training courses, which comprised comprehensive lectures, a review of the literature, video demonstrations, and practice on artificial simulators. Each surgeon assisted in one repair and then performed one under supervision. A questionnaire was sent to each participant.

Twenty two questionnaires were returned (96%

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response rate). Seventeen respondents had previously performed at least 50 laparoscopic cholecystectomies and could therefore be deemed experienced laparoscopic surgeons. All rated the format of the course, the quality of the speakers, and the technical and practical content as good to excellent. Nineteen respondents thought that the artificial laparoscopy simulators were adequate. Four of the five surgeons who had previously been taught on live animals thought that our course would not have been improved if pigs had been used as a training model.

Nineteen participants thought it most important that surgeons should attend a course such as ours before attempting a first case. Twenty and 16 respondents advocated similar courses for surgeons of senior registrar and registrar grade respectively. Eighteen said that they would attend another such course—for example, on colorectal laparoscopy. Suggested ideal training requirements for unsupervised practice were on the job training with attendance of a recognised course (n=22), completion of a specified number of procedures (14), and a probationary period with an audit of morbidity (12).

This survey shows, firstly, that, once the basic skills of laparoscopy have been attained and the means are available for supervised practice, animal training models are not needed; secondly, that surgeons are interested to learn advanced laparoscopic techniques; and, thirdly, that a high proportion of the surgeons questioned think that training courses are important and should be available to junior surgeons. Many courses on laparoscopy are available, varying in both content and quality. We hope that the recent establishment of the three national minimally invasive therapy training units by the Royal College of Surgeons may go some way to solving the problem of providing standardised training. Questions concerning the accreditation of laparoscopic surgeons have yet to be answered.

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See all patients preoperatively

EDITOR,—C M S Royston and colleagues' article on teaching laparoscopic skills contains a disturbing sentence.¹ The suggestion that patients could "be operated on by a surgeon who they have never met and probably never will meet" is unwise and probably unethical. As an itinerant teacher of transthoracic endoscopic sympathectomy I have gone to other hospitals and always make a point of seeing the patients preoperatively. It is precisely because the local surgeons are unfamiliar with the procedure that careful preoperative counselling by the visitor is essential.

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Vascular surgery in smokers

Doctors are well qualified to decide on treatment . . .

EDITOR,—Julie Dawson makes many valid points in her letter on whether the medical profession has the right to decide whether smokers should be entitled to vascular surgery,¹ but she overlooks two issues. She asks how much longer society is prepared to let members of the medical profession take it on themselves to decide who gets treatment. Doctors have always had to carry out this duty because society has never put forward any group better educated or qualified to do so. I find it difficult to believe that there is another body of people who are so qualified, but this should certainly not be a political issue. What is clear is that society in general and the medical profession in particular welcome any guidance on the difficult problems of what society should both be expected to pay for and have a right to expect as treatment.

The second point raised by Dawson relates to outcomes. When we, as a medical body, decide what treatment is offered to patients we inevitably make judgments on whether such treatment will benefit patients—or, in other words, whether there will be a favourable outcome. We want to offer treatments that have good outcomes since those treatments are most valuable. If a patient diminishes the probability of a good outcome of an intervention then the value of that intervention diminishes, maybe to the extent that the same resource could be better deployed elsewhere.

What we have not agreed as a society is how much blame should be incorporated as part of the allocation of priorities. I believe that ascribing blame would be a dangerous course to adopt since so many ills that affect us are in one way or another self inflicted. The blameworthiness of smoking and of falling over when drunk are relatively easy to assess, but what about the blameworthiness of a meniscus being torn during a game of football? We as a medical profession encourage people to play sports to keep fit, but any sport has its associated dangers. Are sports then to be blameworthy or exempt? If football is acceptable, what about skydiving?

These are difficult questions that need public debate by all concerned with ethics in medicine.

Only from such full debate will both the medical profession and society be better educated.

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(9 April.)

... when resources are limited

EDITOR,—Julie Dawson suggests that smokers should be asked whether they should have arterial surgery because "it is their life."¹ She asks how much longer society, which funds a national health service that is supposed to be there for all, is prepared to let doctors decide who gets treatment.

It may be the smoker's life, but it is society's resources. Doctors make decisions about treatment—in discussion if they are reasonable—because they know more about (the imperfect knowledge of) disease than most other people. If resources are limited (which they are: health is not there for all) decisions have to be made unless rationing is decided by lot or on a first come, first served basis.

Julie Hotchkiss distorts a serious discussion by asking whether differential survival by gender would justify expensive interventions being offered only to women.² This is not a valid comparison: smoking is addictive but is a lifestyle factor, which, unlike gender, entails an element of choice.

There is a view that we are all—smokers, heroin misusers, thieves—only victims of circumstance. It is a sustainable philosophical view but unrealisable practically. If we want the right to society's resources we have a duty to respect them and must be prepared sometimes to have resources refused if we ignore those duties.

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1 Dawson J. Vascular surgery in smokers. *BMJ* 1994;308:978.
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2 Hotchkiss J. Vascular surgery in smokers. *BMJ* 1994;308:987-9.
(9 April.)

Immunodeficiency without HIV

Clinical presentations vary

EDITOR,—A McNulty and colleagues reported on seven HIV negative patients with CD4 T lymphocytopenia and clinical diseases due to defective cell mediated immunity.¹ These cases were found during a national survey in Australia in which 96 practitioners were contacted. We present information on five HIV negative patients (four adults and one child) seen in our department between 1991 and 1993 (table) who meet the criteria set by McNulty and colleagues; two of them also satisfy the Centers for Disease Control's criteria for

CD4 T lymphocytopenia as defined by McNulty and colleagues. All patients had been referred to our department of immunology for evaluation of suspected immunodeficiency.

In contrast to the Australian group, our patients presented with a diverse range of clinical problems, from planar warts and vasculitis to recurrent infections. CD4 lymphocytopenia and defective cell mediated immunity may occur in medical conditions such as sarcoidosis, as in case 4. Acquired defects in cell mediated immunity may be associated with abnormalities of other parts of the immune system as in case 1; the patient was initially diagnosed as having panhypogammaglobulinaemia and was receiving replacement intravenous immunoglobulin treatment. The patient in case 2, who had the least clinical evidence of immunodeficiency, had the most profound CD4 lymphocytopenia. Interestingly, in the past she had failed to respond to BCG and hepatitis B immunisation.

Unlike McNulty and colleagues, we believe that defective cell mediated immunity without evidence of HIV infection may be uncommon but is not rare. Suspected immunodeficiency of any form should be investigated in conjunction with a department of immunology.

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1 McNulty A, Kaldor JM, McDonald AM, Baumgart K, Cooper DA. Acquired immunodeficiency without evidence of HIV infection: national retrospective survey. *BMJ* 1994;308:825-6.
(26 March.)

Consider HIV negative immunodeficiency in cryptococcosis

EDITOR,—A McNulty and colleagues suggest that a relation exists between CD4 T lymphocytopenia and cryptococcosis.¹ We report a case that gives credence to this view.

In 1993 a 48 year old man was referred to a dermatologist with an excoriated plaque on his right wrist. The lesion had arisen at the site of a peck by a pigeon. Biopsy showed cutaneous cryptococcosis. The patient kept pigeons, and earlier blood tests as part of investigations for an exacerbation of his chronic obstructive airways disease had yielded positive results for avian (pigeon) precipitants. In addition, a lymph node biopsy for inguinal lymphadenopathy in 1988 had shown a granulomatous disease, believed to be sarcoidosis. Tests for tuberculosis at that time had yielded negative results.

Further investigations in 1992 after weight loss and pneumococcal pneumonia identified florid oesophageal candidiasis and an absolute CD4 T lymphocyte count of $0.101 \times 10^9/l$ (much below $<300 \times 10^6$ required as a criterion for idiopathic CD4 T lymphocytopenia). Tests for HIV-1 and

HIV-2 yielded persistently negative results, and tests for HTLV-1 also yielded negative results. Subsequently the patient developed a pleural effusion, which was repeatedly found to contain acid-alcohol fast bacilli. Attempts to classify the species on culture were unsuccessful. Despite intensive treatment for cryptococcosis and tuberculosis the patient continued to deteriorate, and he died in February 1994. Necropsy showed systemic granulomatous disease; empyema, with the pus being positive for acid-alcohol fast bacilli; and continuing cutaneous cryptococcosis at the site of the peck. Retrospectively, it seems likely that the original lymph node disease was also of mycobacterial origin.

This case confirms other reports that severe CD4 T lymphocytopenia can occur in the absence of HIV infection. Although the case has many features in common with the recently defined idiopathic variant,^{2,3} the CD4 T lymphocytopenia was probably of acquired origin, given that the patient had a longstanding granulomatous disease, which perhaps had a role in the pathogenesis of his immunodeficiency. As in McNulty and colleagues' cases, cryptococcosis was an important manifestation. In this instance, however, it seems to have been of primary cutaneous origin since it developed at the site of the pigeon peck. Moreover, necropsy failed to show evidence of extracutaneous disease. A clinically alarming feature of the case was the inability of intensive therapeutic intervention to clear the mycobacterial and cryptococcal infection. The mycobacterial infection could well have been of avian origin, though this was not proved; this illustrates the potentially fatal complications of keeping pigeons.

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Controlling AIDS in India

EDITOR,—Zaka Imam's report on India's AIDS control programme presents a grim picture of a nation struggling to cope with rising numbers of cases of HIV infection.¹ Official figures grossly underestimate the numbers. The World Health

Details of HIV negative patients with CD4 lymphocytopenia

Case No	Age/Sex	Clinical details	Total lymphocyte count ($\times 10^9/l$) (normal range 1500-4000)	CD4 lymphocyte count ($\times 10^9/l$)		CD8 lymphocyte count ($\times 10^9/l$)		CD4:CD8 ratio (normal > 1.7)	Immunoglobulins (g/l) (adult reference range)		
				Absolute %	No	Absolute %	No		G (5.4-16.1)	A (0.8-2.8)	M (0.5-1.9)
1	39/F	Chronic diarrhoea, bronchiectasis, widespread warts, panhypogammaglobulinaemia	960	28.9	278	28.6	275	1.01	1.8	0.7	0.13
2	25/F*	Widespread planar warts	1943	8.7	169	43.8	744	0.2	14.4	3.3	0.17
3	3/M	Vasculitic rash, Raynaud's disease, recurrent candidiasis	4092	18.4	753	25.7	1048	0.72	18.5	3.6	1.3
4	35/M	Pulmonary sarcoidosis, chronic Epstein-Barr virus infection†	1430	25.6	380	32.2	460	0.83	11.5	2.3	5.5
5	28/F	Recurrent pustular rash, Bartter's syndrome	1000	30.8	300	34.5	345	0.89	11.5	2.1	1.5

*Negative for HIV antibody and p24 antigen.

†IgG antibody to viral capsid antigen 1:1280 (normal range < 1:640; IgM antibody to viral capsid antigen positive; IgG antibody to early antigen 1:40 (normal range < 1:40).