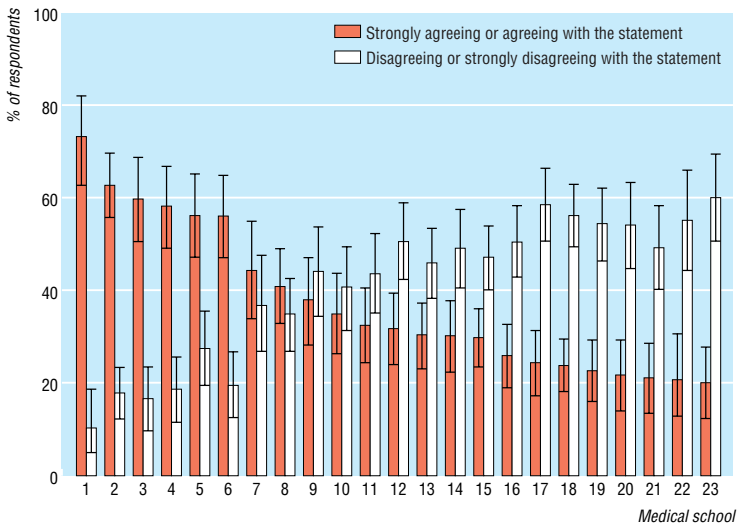

Responses to the statement "Medical school prepared me well for the jobs I have undertaken so far" from graduates of 23 UK medical schools. Error bars denote 95% confidence intervals for the percentages "who strongly agreed or agreed" and who "strongly disagreed or disagreed." For each medical school, the percentage of doctors who stated "neither agree nor disagree" is the difference between 100% and the sum of the two percentages shown

but was limited in basic problems found on the wards"; "Not enough emphasis on real life situations"; "Not enough time shadowing PRHO prior to commencing work." Six also commented that, in their view, the practicalities of the job could be learnt quickly, for example: "Felt inadequately prepared for surgical house jobs—but you can pick it up very quickly."

Comment

Differences between medical schools were large in how well their graduates felt prepared for their house jobs. The findings raise questions that we cannot answer from our survey. Are mismatches between experiences at medical school and work important, or are they a short term hindrance and easily overcome? Does the preregistration year require tasks, skills, and activities that medical schools do not expect to teach? We understand from deans of medical schools that, since the time covered by our survey, curriculum changes have placed greater emphasis on practical experience. Systematic, in-depth feedback to medical schools from their graduates is needed. Because of differences between short term and longer term educational needs, and because the education of medical students serves the generic needs of all clinical specialties, this should be done with feedback from experienced doctors as well as junior doctors. Decisions also need to be made, as the General Medical Council and Department of Health recognise, about the distribution of work and training across the time spent in medical school, the preregistration year, and the senior house officer years.[3 4]

Karen Hollick administered the survey, and Janet Justice and Alison Stockford entered the data. We thank all the doctors who participated in the study.

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Prospective randomised controlled trial of laparoscopic versus open inguinal hernia mesh repair: five year follow up

M Douek, G Smith, A Oshowo, D L Stoker, J M Wellwood

Department of Surgery, Royal Free and University College Medical School, London W1W 7EJ
M Douek *lecturer in surgery*
A Oshowo *specialist registrar*

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Laparoscopy enables hernial orifices to be observed and tension-free mesh repair to be carried out effectively. In the first randomised controlled trial on hernia repair, which compared laparoscopic transabdominal preperitoneal (TAPP) mesh with open darn repairs, laparoscopic repair was less painful and enabled patients to return to work and normal activity more quickly.[1] Since then, several randomised controlled studies and systematic reviews have largely confirmed these results.[2 3] More recently in the United Kingdom, the National Institute for Clinical Excellence reviewed the available early results and published its guidance on the use of laparoscopic surgery for inguinal hernias.[4]

We present results of a randomised controlled trial of inguinal hernia repair with over five years' follow up, comparing laparoscopic TAPP mesh repair with Lichtenstein open mesh repair. The main long term objective of this study was to compare the complication rates of these procedures.

Participants, methods, and results

We conducted the trial at Whipps Cross and North Middlesex University Hospitals between May 1995 and December 1996. The trial design has been reported.[5] A total of 403 patients were randomised to one of the

two arms: open repair under local anaesthetic or laparoscopic TAPP repair under general anaesthetic. We investigated the long term complication rate and the incidence of wound numbness, groin pain, testicular pain, testicular atrophy, contralateral hernias, and recurrence.

Patients were recalled after a minimum of five years. One of three independent junior surgeons who were not involved in the original study (MD, GS, AO) assessed and clinically examined the patients. We used a questionnaire that included standard questions that have been previously validated.[5]

Of 400 patients included in the final analysis, 374 were alive five years after the operation. A total of 242 patients (65%) were reviewed (120 open repair; 122 laparoscopic repair). Mean follow up was 5.8 years. The long term complication rate for all reviewed patients was lower in the TAPP group than in the open mesh repair group (table). Permanent paraesthesia and groin pain were significantly reduced in the laparoscopic group. Of 27 patients with paraesthesia, clinically important paraesthesia (affecting the patient moderately or severely) was seen in 12 (44%) in the open mesh repair group and none in the TAPP group. Severe pain (pain analogue scores over 50%) on movement (four patients) or at rest (two patients) was seen only in patients who underwent open repair. No serious laparoscopic complications were seen.

Long term complications in patients at least five years after undergoing inguinal hernia repair. Results are numbers (percentages)

Complication	Method of hernia mesh repair		P value (Fisher's exact test)
	TAPP (n=122)	Open (n=120)	
No of patients with complications	13	52	
Numbness	3 (3)	27 (23)	<0.0001
Groin pain	2 (2)	12 (10)	0.006
Testicular pain	4 (3)	6 (5)	0.536
Testicular atrophy	1 (1)	3 (3)	NS
Removal of infected mesh	0	1 (1)	NS
Recurrence	2 (2)	3 (3)	NS
Umbilical hernia	1 (1)	0	NS
Contralateral hernia	11 (9)	11 (9)	NS

TAPP=transabdominal pre-peritoneal repair; NS=not significant.

Comment

Laparoscopic and Lichtenstein open mesh repairs were associated with good long term results and a low incidence of recurrence, but laparoscopic repair caused less groin pain and permanent paraesthesia than Lichtenstein mesh repair. With the introduction of Lichtenstein mesh repair, recurrence rates have fallen dramatically to below 2%, and therefore potential long term complications such as pain, paraesthesia, and testicular atrophy are now more clinically important than before because they are mostly irreversible.

NICE recommended that open mesh should be the preferred surgical procedure for the repair of primary inguinal hernias and that laparoscopic hernia repair using the extraperitoneal approach (TEP) should be considered for repairing recurrent and bilateral hernias. An increase in the low risk of potentially serious intraoperative complications, which we have not seen in our trials, has been reported in association with the TAPP repair.[2] Most of the trials to date have used the TAPP rather than TEP approach. Clearly, before we can draw any firm conclusions on the appropriate laparoscopic technique, long term results of large randomised studies to compare TAPP with TEP are required. Until then, it is best to take the pragmatic approach and use the technique that a centre is most familiar with.

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Contributors: MD set up the five year review, reviewed patients, analysed and interpreted the data, drafted the paper, and obtained funding. GS reviewed patients and assisted with data analysis. AO assisted with setting up the five year review, reviewed patients, and assisted with data analysis and writing of the paper. JMW and DLS were responsible for the study concept and design, contributed all the patients, performed most of the operations, supervised the study, contributed to writing the paper, and will act as guarantors. DLS obtained additional funding for the study.

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Department of Surgery, Whipps Cross University Hospital, London E11 1NR
G Smith
senior house officer
J M Wellwood
consultant surgeon

Department of Surgery, North Middlesex University Hospital, London N18 1QX
D L Stoker
consultant surgeon

Correspondence to:
D L Stoker