

Lars Pålman: Super-specialist

→ Marc Beishon

In 1982 Lars Pålman became an early advocate for the importance of expert surgery in colorectal cancer, and he has been spreading the message ever since. More controversially, he believes surgical oncologists are a thing of the past: in future, cancer surgery – and ultimately radiotherapy and medical oncology – will be carried out by organ-based specialists.

First impressions can be deceptive in the medical world. Spend a few minutes with Lars Pålman, Professor of Surgery at the University of Uppsala, Sweden, and you will quickly discover a complete dedication to his chosen field of colorectal surgery and research. You may even know that he has a passionate interest in stamp collecting – and conclude that he is a quiet, studious sort with his head buried in matters of proctology and philately.

Ten minutes later, however, and it is apparent that Pålman is one of the more outspoken members of the medical community, both at home in Sweden and further afield. He is a man who speaks his mind – and holds strong views about the role of surgery in cancer treatment, the influence of the pharmaceutical companies and medical training for young surgeons. Of late, he has even been challenging the august teaching methods at the ultra-traditional Uppsala University medical school – something one could only do with the clout that comes

from being one of the world's top colorectal surgeons and researchers.

Not that Pålman's colorectal "super-specialism" – a label he agrees with – was his first choice. Like many top doctors, he made the most of opportunities that came his way in the early days. Born in 1946, he is one of five children, and the only one to follow his father – a surgeon turned GP – into medicine. Unusually for Swedish children, he attended a boarding school near Stockholm, but did not initially make the grades necessary to go to medical school. He first studied genetics for a year and a half at the University of Stockholm, and did his compulsory military service.

The genetics course raised his grades sufficiently to go on to the medical school at the University of Uppsala, not that his father was outwardly pleased. He said: "Don't blame me if you don't like it," comments Pålman. Apart from making his grades he was – and is – "a very organised person. I never missed an exam and passed them all – I always read everything and have been well prepared for tests."



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However, he quickly earned a reputation for being outspoken. “Some didn’t like me, as I’m not afraid to speak out and say what I think. A good example was when we did a course in social medicine – I didn’t think it was worthwhile. When we were asked for feedback on the whole course I said the only good thing was a field trip where we saw the sun shining on a famous mountain near the Norwegian border. The professor wasn’t happy.” (That professor is now a firm friend – they are both avid stamp collectors.)

After medical school he did the traditional Swedish thing and went to complete his surgical training at a large district hospital in Falun, about 200 km north of Uppsala. But it was an earlier, shocking event that set him on a rather round-about way to obtaining a general surgery qualification.

“While I was a student I worked as a radiologist during the summer, and a patient I had injected with a contrast medium went into anaphylactic shock. I didn’t even realise she was sick until the nurse who was helping me raised the alarm, and the patient survived. I realised that evening that I’d almost killed a patient and thought I wasn’t good enough. But I was determined never to be afraid of a sick patient, so next summer I worked as an anaesthetist and then spent a year on this specialism, learning how to take care of critically ill people.”

Needing to obtain experience in other areas, he then switched to orthopaedics for two years, thinking perhaps this branch of surgery would be his specialism, but he also had to complete general surgery training. Each new step he found more “fun” than the last – a word that speaks volumes about how rewarding he finds his work.

Påhlman returned to university in Uppsala to continue his academic career by writing a thesis and developing another specialism. This

is a step most Swedish surgeons take, but the majority will then return to the regions as consultant surgeons. Not Påhlman. He wanted to stay involved in research, and he has remained at the University ever since. But he had to choose a specialism for his research. “I’d planned to go into vascular surgery, but there was no place for me. The best department at Uppsala was the endocrine group – but there was no room for me there either.”

Then an epidemiologist suggested he look at rectal cancer. This was just the sort of challenge Påhlman was looking for – there were high local recurrence rates (i.e. local to the site of the cancer) after surgery, and tremendous scope for research about how to improve the gloomy outlook for many patients. His thesis was a wide ranging set of projects, as can be judged from the title – “Rectal carcinoma – an evaluation of the local recurrence rate, surgery for cure, staging and perioperative radiotherapy” – and in the 1980s he also began work on a randomised trial, and became a tutor for several other projects.

As he explains: “When I first became involved in rectal cancer in the late 1970s and early 1980s, local recurrence rates were between 30 and 50% – in the first paper I published, I reported 40%. We thought this was a matter of tumour biology, which is why we started to add radiotherapy to the treatment.”

So convinced was he that his first big trial “flipped the coin”, as he puts it, between pre- and postoperative radiotherapy. “Then in a meeting in Rotterdam in 1982 – which I remember well – I saw Bill Heald, a surgeon from Basingstoke in England, who told us he had no local recurrences at all – it was nothing else but good surgery. I was sitting there with an old surgeon, who said, ‘He must be a crook – it’s rubbish.’”

A year later, Påhlman was in the US at another conference and saw Heald again, this

time running a film about his operating technique for rectal cancer. After watching it several times, Heald eventually asked who he was. “I told him I’d published my first paper with that 40% local recurrence rate. Bill said something like, ‘Oh my goodness, let’s have a beer lad,’ and I found out how to operate like him.”

The technique pioneered by Heald at Basingstoke is total mesorectal excision (TME), which essentially involves sharp dissection of the tumour and surrounding fat under direct vision. TME has had an extraordinary impact on preventing local recurrence in rectal cancers suitable for the technique – the majority – and Pählman and colleagues were quick to apply it to their patients.

“In my thesis I had a project to find local recurrences as early as possible, so I already had a follow-up programme using computer tomography, which was rather new then, and saw all patients after six months. I took biopsies and we had no recurrences because I’d learnt how to operate.”

Together with long-standing oncologist partner Bengt Glimelius – who like most Swedish practitioners combines medical oncology and radiotherapy qualifications – they started to publish that there were no local recurrences in Uppsala. They found colleagues reacted in a similar way to those who heard about the Basingstoke work. “People were furious,” says Pählman; “they thought we were stubborn and were not being truthful.”

“Then in 1986 I gave a talk to the Swedish Medical Society, having then operated on more than 90 rectal cancers, and I reported one local recurrence. An old surgeon stood up and said, ‘This is the day I’ve been waiting for – now you report a recurrence. Now we believe you.’”

Pählman’s focus on the very best surgical techniques has certainly paid dividends in Sweden. After what he terms a “tough discussion” in medical circles about why he was get-



Hitting the ski trails with his friend and colleague Bengt Glimelius

ting such good results, he has led training across the country to ensure that only qualified colorectal cancer surgeons can carry out operations.

Sweden, he says, now reports some of the best results for rectal cancer in the world, and other countries that have adopted similar strategies, such as Norway, are also doing very well. But the move to organ-based specialism is by no means well advanced in all countries – Pählman mentions Switzerland and eastern Europe in this context.

“Now all Swedish surgeons have almost the same results,” he adds. “When I meet young surgeons they ask me whether I know their local recurrence rates.”

And of course he does – Pählman is chair of a Swedish rectal cancer register and knows about every cancer that has been operated on and who carried it out. That is no mean feat, given that colorectal cancers are the third biggest killers after breast and prostate, and the country sees between 5,000 and 6,000 cases a year, at 50–60 per 100,000 population, and rising.

So with the TME technique and top-quality surgery, Pählman and Glimelius realised that the

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way forward lay not with radiotherapy, but a combination of surgery and radiotherapy (though of course surgery alone remains the single most important treatment). Pählman’s view is also that it is natural and desirable that surgeons – who have the closest involvement with patients – should be among the research leaders.

From the late 1980s onwards he has been involved with numerous, large randomised trials, notably the Swedish Rectal Cancer Trial, which he says was the first to demonstrate that patients receiving a week’s worth of preoperative radiotherapy did better than those who did not. He was also an investigator on an important Dutch TME trial.

The Swedish Rectal Cancer Trial was eventually accepted for publication in the *New England Journal of Medicine* in 1997 – but as Pählman comments, it posed a direct threat to some US interests, where longer (five-week) courses of postoperative radiotherapy have been the norm. “One of the referees said something to the effect of, ‘Don’t accept this paper as it will ruin the economy for the radiotherapists.’”

Pählman is not complimentary about practice in the US, although he’s quick to stress that some American professionals are good friends. “They rarely quote European articles, and our Swedish radiotherapy regimen has never been accepted. When an insurance company is paying they can drag out the money.”

It is a loaded statement, but colleague Glimelius concurs, noting in a recent presentation that “non-scientific reasons dictate why long-course regimens are used [outside of trials]”. Pählman was also unimpressed by surgical techniques he observed a few years ago at some big US hospitals; a particular frustration is the wasted opportunities to conduct more trials. He mentions, as an example, the need for studies of pelvic pouch surgery for inflammatory bowel disease, to compare the effect on bowel function

of taking the mucosa down to the anus versus leaving a small rim and stapling it. “In Uppsala we have done 300 such operations since 1982 – at the Mayo Clinic they do 300 a year, so it is a piece of cake to do research if they want.”

He feels that a system where patients insist on finding doctors who “know all the answers” mitigates against such trials. He feels fortunate that, in the state-funded Swedish system, patients are more likely to trust the judgement of doctors who candidly say they do not know which treatment will be best – and that there is only one way to find out.

Not that all is rosy in Swedish healthcare – far from it. Often held up as one of the best systems in the world, demand has stretched resources such that waiting lists can be long (some operations such as varicose veins could take years), while Pählman comments that primary care is not pulling its weight as it could – some GPs see as few as seven people a day, he comments.

However, waits for top priority cases such as cancers are still quite short and Pählman says that once in hospital, treatment is generally first class. In part that is down to specialism – as Pählman says, he does only colorectal surgery; he would not do a hernia or take out a gall bladder. There has, he adds, been a debate about the centralisation of surgical expertise and possible lack of emergency cover in remote regions. His view is that elective surgical expertise comes first, noting that you’d always take a Volvo to a Volvo garage for servicing – but a Saab station might do to keep you going for a bit if you broke down in the mountains.

His trenchant views on the role of surgery extend beyond Sweden, to the rest of Europe. In 2000 he was appointed President of the European Society of Surgical Oncologists (ESSO), and has set about trying to change the role of the organisation.



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The main issue for him is that top surgeons simply do not participate. “The real big shots in surgery are not on the ESSO board,” says Pählman, who has been a board member since the early 1990s. Instead, he argues, because of the move for doctors to specialise as organ-based surgeons rather than general cancer surgeons, they are more likely to be found on the boards and meetings of societies such as the European Pancreatic Club.

What’s more, Pählman thinks that in 10 years medical oncologists and radiotherapists will go the same – organ-based – way. His solution, which he has proposed to the Federation of European Cancer Societies (FECS) – where he has also been a board member – is to reor-

ganise in organ-based groups. This did not make Pählman popular at first, “but I think they understand what I mean,” he says.

As for ESSO, he says the plan for the next congress – in Venice in 2006 – is to call it the “Congress of cancer surgery”, instead of surgical oncology, and invite the various organ-based societies to participate. To ease them in, Pählman says organ topics will be kept to a certain day to maximise value for attendees. He adds that since he stood down from ESSO, and his successor Luigi Cataliotti took over as President, he feels the shift in thinking at ESSO/FECS has continued as he would like, and says this is his major achievement at European level.



Putting his surgeon's hands to some carpentry work at his island summerhouse in Stockholm's archipelago

Another big issue with the role of surgeons is the lack of funding. As Pählman points out, a good ESSO conference attracts several hundred surgeons, while equivalent events for medical oncologists can run to thousands of attendees. It's a similar picture at joint events – and this is because medical oncology benefits greatly from “drug money”.

“For me, oncology has been dominated by drugs, and medical oncologists today have too much influence,” says Pählman. “It is the same for drug treatments in other fields such as cardiology and gastroenterology.” Apart from the difficulty in enlisting patients into trials, he says that funding basic research to ascertain, for example, the relative merits of staplers used in colorectal surgery, is proving hard. Meanwhile, certain classes of drugs – he picks out antibiotics – are taking second stage to the development of drugs likely to prove more lucrative.

Then the sheer number of drugs entering the cancer arena is outstripping the capacity of doctors to know what to administer, adds Pählman. However, for colorectal cancer he talks excitedly of the potential of the many drug treatments becoming available, and in general he considers his field to have as much if not more going on than other cancer types.

On the drug side he mentions Erbitux (cetuximab), which acts on epidermal growth factor receptors, and has been trialed with suc-

cess in Europe with patients with advanced colorectal cancer (this was the so-called BOND trial); and also Avastin (bevacizumab), which acts on the vascular system [the two drugs are reviewed on p. 37 of this issue].

There is also much to gain, he adds, by heredity screening programmes: hereditary non-polyposis colorectal cancer (HNPCC) could be implicated in up to one in six colorectal cancers, and there is also familial adenomatous polyposis (FAP).

Indeed one of his key missions is to establish a colorectal cancer screening programme in Sweden – he has been lobbying the country's health policy makers for some time on this issue. “I'm fighting hard for the government to run a feasibility study, as has already been done in countries such as England,” he says. “I'm known as Mr Screening for colon cancer in Sweden – I've said, ‘Let's give all Swedes a colonoscopy as a 60th birthday present.’”

At Uppsala, Pählman is certainly doing as much as he can to further research. “Today I have 32 randomised trials running in my unit,” he says. “Large trials are my main research interest.” They cover a wide spectrum of chemotherapy, radiotherapy and surgical treatments. Most of these trials are organised by Pählman and colleagues within Sweden and with European centres, and they include four EORTC (European Organisation for Research and Treatment of Cancer) studies at present. However, Pählman notes that Sweden has tended to carry out its own trials and has been on the periphery of European cooperation, a situation he would like to move away from.

Not all the research has proved as fruitful as the landmark study on preoperative radiotherapy. Work on predicting prognosis of rectal cancer patients came up against a brick wall in the mid-1990s, when all the markers and samples gained from tumours barely advanced the percentage of patients they could confidently predict (from 7 to 9%). This programme may be restarted, thanks to advances in translational research.

In common with most cancer researchers, Pählman is alarmed by European and state rules governing informed consent for transla-

tional research, and for trials involving marketed drugs (on the latter, he says doctors are preparing a paper to be submitted to the Swedish government).

Away from research, Pählman also runs the colo-proctology surgery training programme at Uppsala, and is chair of the European Board of Surgical Qualification for the speciality. His own surgeons get a special six-year training programme, where they carry out all four operative areas – cancer, inflammatory bowel disease, function and proctology – and become “leads” (or “cream positions” as Pählman puts it) in each for certain periods, during which they can walk into the theatre and say, “I’m the cancer surgeon this month, that is my procedure.” “Everyone stands back, except the consultant who holds the retractors while the young surgeon does the job,” says Pählman. This is certainly different from the usual assistant’s role that many young surgeons play.

He’s fiercely critical when he sees poor surgery in his own hospital – when he says that some surgeons should pay to come and work there, he is not joking. He has also witnessed the entire spectrum of practice all over the world as a visiting professor, including on training visits to the Baltic states.

There are some centres that have greatly impressed him – he cites St Mark’s in London – but it is likely that most have much to gain from his expertise. When a Lithuanian surgeon visited Uppsala, Pählman operated on a particularly difficult case, removing and replacing bladder, bowel and prostate, and providing a new rectum and no stomas. His visitor presumed that the patient was on a one-way trip to the cemetery and was astonished to see him sitting up in bed the next day.

Pählman is still travelling a lot, although he now says he won’t accept another European

board position, as time simply won’t permit it. He has three grown-up children – none of whom have followed him into medicine – while his wife works for an arts foundation. “She calls me a square,” he says, thanks to being buried in papers and stamps. That’s clearly not true all the time – wine, opera and an island retreat are also on the agenda.

He is though a highly serious philatelist, with British Empire stamps a speciality. A presentation he has given at medical conferences is a grand tour around the world of anti-tobacco stamps – from countries that have used their postage stamps to carry messages about smoking. Pählman has scanned a remarkable number of stamps under various themes for this presentation, and you could well catch it being shown at meetings in southern Europe, where smoking rates are far higher than Sweden.

While he is doing his bit for prevention, solving surgical and treatment problems for benign disease and cancers remains Pählman’s core mission. Tracking back to medical training, he is now engaged with the authorities at Uppsala University in a bid to move towards problem-based learning and away from traditional classroom instruction (he cites McMaster University in Canada as an exemplar). “Most medical students are lazy,” he comments, “just sitting there with their mouths open, waiting for the grilled bird to fly in.” Well we get the gist – he wants a more demanding environment for students and faculty alike to prepare them for the challenges ahead.

And if he could wave a magic wand, it would be to eventually let those students loose on far more clinical trials – he estimates that just 3% of patients with rectal cancers, for example, are currently in trials in Europe. Work on “flipping more coins” can’t come fast enough for Pählman.

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