Gynaecological oncology: Hungary has a word for it

➜ Peter McIntyre

Péter Bösze, professor, gynaecologist, geneticist, chemotherapist, radiotherapist and teacher, helped found the Budapest school of radical surgery. Today he is still encouraging young gynae-oncologists to think radically and practise holistically – and he is helping ensure that they can do both in their own mother tongue.

Péter Bösze pioneered the development of gynaecological oncology in Hungary and in Europe, and is a leading figure in a movement for radical surgery that today sees young surgeons from around the world seeking training opportunities in his home country.

He is polymath: a surgeon who is also a geneticist, chemotherapist and a board-certified specialist in radiotherapy. He believes that the gynae-oncologist has a holistic role in the medical care of women, and should practise with a broad range of skills and tools. He is excited about the prospects of a prophylactic vaccine for cervical cancer and looks forward to better drugs to treat ovarian cancers. Yet he upholds, above all, the role of surgery in cervical, endometrial and ovarian cancers as being the most likely to prevent relapse and the least likely to cause complications. He also believes that gynae-oncologists are the natural people to specialise in breast cancer surgery, and has won the right for this in Hungary. He believes that there is almost nothing a skilled surgeon cannot accomplish, so long as he or she is properly trained, keeps up to date with the latest research and sees enough patients to be a genuine specialist in their field.

Still a full-time practising consultant at St Stephen's Hospital in Budapest, he devotes time to publishing, writing and teaching at Semmelweis University, instilling in young men and (increasingly) women the training, skills and confidence to take surgery forward and bring the results of basic research into daily practice. He is also leading a movement to adapt Hungarian medical language so that everything that needs to be known and understood about cell mutation, genetics, surgery and cancer can be said in his native tongue.

If Bösze has a determination that gynaecological oncologists will not be compartmentalised, he probably owes some of his self-confidence to the pernicious regime that tried to prevent him from following his chosen career.

Bösze qualified from Semmelweis Medical University in Budapest in 1963, seven years after the Hungarian uprising was put down by the Soviet army. "I was against the system, as far

as it was possible," he says. With no family members in the Communist Party, he was denied a job in Budapest and the right to become an obstetrician and gynaecologist.

Instead, he was sent to the town hospital of Karcag, 150 km east of Budapest, and told to train as a general practitioner (GP). This turned out to be a brilliant mistake on behalf of the authorities, as the head of obstetrics and gynaecology at Karcag was desperate for help and Bösze was thrown in at the deep end.

The basics

"It was a world with no modern technology, nothing. Sometimes there was no light, and we used a candle," Bösze recalls. "The obs and gynae operating theatre was 500 metres away, and sometimes there was no ambulance to take a patient. If there was an emergency Caesarean section, I just put my hands in iodine and did the operation in the delivery room with the nurse. The boy who was the porter was also the anaesthetist. He was excellent with ether and chloroform; there were no accidents and everyone survived.

"Sometimes it happened that there was no blood for transfusions. We took out the blood from the abdominal cavity and filtered it and screened it and gave it back to the patient. This was 40 years ago, my first experience of autotransfusion.

"I was on duty 28 days a month for six years. I was enthusiastic. I was allowed to do everything. It is no way for a medical doctor to be trained, but there was no alternative. It was a kind of auto-training. I have to tell you that I loved it. I really loved it."

Once a fortnight he was allowed to attend the medical school at Debrecen University and he found time to publish 16 papers from Karcag. In 1970, the Director of the Medical

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Postgraduate University in Budapest invited Bösze to join the staff. There he received a thorough academic training in obstetrics and gynaecology, and was put in charge of the cytogenetics laboratory, where he worked on structural chromosomal abnormalities, pursuing an interest in infertility and gonadal dysgenesis.

The awards began to flow, and in 1974 he spent a year in Edinburgh doing genetic research. On his return to Hungary, Bösze achieved certification in human genetics, and later in radiotherapy, and he completed his PhD in primary ovarian failure.

The more he practised, the more he felt that gynaecological cancer demanded its own sub-specialty. "I wanted to devote all my time to gynaecology and genetics regarding malignancies and tumours. Obstetrics and gynaecology training was far from enough to treat cancer patients, and there was a desperate need for adequate surgery."

In 1988, he was appointed to head the gynae-oncology department at the National Institute of Oncology in Budapest, directed by Sándor Eckhardt, later to become President of the International Union Against Cancer (UICC). Bösze introduced radical surgery. His team was the first in Hungary to carry out a pelvic exenteration, to remove the uterus, vagina, ovaries, and lymph nodes, lower colon, rectum, and bladder, and to create stomata for faeces and urine.

At international meetings, Bösze made a practice of visiting one of his hosts in their operating theatre and learning every technique that could push back the boundaries. In six years as head of gynaecological oncology at the Institute, he not only expanded the role of surgery, but oversaw 1,000 chemotherapy treatments a year and a similar number of brachytherapy (intracavity radiotherapy) episodes.

When Eckhardt was injured in an accident and stood down as Director of the Institute, Bösze did not see eye to eye with his successor and left. He eventually joined a strong gynaecological oncology team (many of whom he had helped to train) at St Stephen's Hospital, as a consultant. "We have trainees from all over the world, and I am really proud of our surgery. I am not head of this department and it is my colleagues who do the major work, but I am proud that I started it."

Radical surgery

Here, the Budapest school of radical surgery flourished, for example, extending radical hysterectomy to remove not only the womb, parametrium and lymph nodes, but also scattered lymph nodes beyond the internal iliac veins and

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arteries that had been considered unreachable, in effect clearing the pelvic side wall.

Bösze says, "With this technique, we totally changed our five-year survival rate for cervical cancer in stage 2B. Our five-year survival is over 80%, while using combination therapies it is perhaps not more than 60%. We very rarely use combination therapy in operable cervical cancer. We consider that lymph node dissection is a therapeutic curative approach."

The department also invented radical abdominal trachelectomy (ART) to remove the cervix, parametrium and lymph nodes, but preserve the fundus of the uterus so that a woman can still carry a child. László Ungár, head of the St Stephen's team, recently went to the US to carry out this operation there.

Bösze believes that genetic advances will show surgery to be the best stand-alone treatment for a range of cancers. "I would say that 70% or 80% or higher percentage of early cases of gynaecological cancers are treated with surgery with or without adjuvant therapy. If you perform radical hysterectomy in early-stage cervical cancer (stage 1B1), you find secondary metastatic nodes in no more than 20% of the cases. But how can you separate which are the 20% and which are the 80%? Genetic research will find out who requires radical treatment and who requires a simple hysterectomy or amputation of the cervix. In my view, this is the challenge of our time; to individualise treatment and management."

Specialist surgery can also reduce the need for radiotherapy. Some endometrial cancers can be cured by a simple surgery, hysterectomy and bilateral salpingo-oophorectomy (removal of the uterus, ovaries and fallopian tubes). However, some patients have a higher risk of lymph node metastases, and Bösze estimates that 50%–60% also require adequate lymph node dissection. General gynaecologists rarely offer this extra step, which means that patients receive unnecessary post-operative radiotherapy.

"The question is whether the risk and the complications of lymph node dissection can be compared to the risk of adjuvant radiation therapy. I am certainly in favour of lymph node dissection. Removing the lymph nodes from the pelvis is very rarely associated with any kind of complications in skilled hands, and certainly does not have the long-term complications associated with radiation therapy. Radiation therapy is not a harmless procedure, and it invariably damages normal tissue."

Problems associated with radiotherapy are sometimes downplayed, because radiation-induced fistulae and bowel damage rarely occur within five years of treatment, which is the time used as the standard measure of effectiveness. However, Bösze says that some patients die from radiation complications 15 or 20 years later.

Pre-operative radiotherapy is also being dramatically reduced. "There was a tradition for pre-operative intracavitary radiation therapy in endometrial or cervical cancer. Now we have cut this tradition, and established guidelines where surgery alone is enough, and sparing radiation therapy."

Bösze believes that gynae-oncologists must keep themselves up to date with chemotherapy and radiotherapy. "You have to know, in detail, when chemotherapy should be given, how should it be given, and what are the principles of why it works.

"The same is true for radiation therapy. If you don't have any idea of the place for radiation therapy or chemotherapy, when there is a meeting of the board, and the radiation therapist says 'yes we should do radiation therapy,' that is a one-person decision, not a team decision. Even in highly qualified centres, patients may get radiation therapy because radiation therapy wants patients."

"Genetic research will find out who requires radical treatment and who requires minor surgery"

Traditional tools

As well as keeping up to date with new sciences, Bösze is a great advocate of some traditional tools of his trade, especially the colposcope. He does not understand why western European countries rely on smear testing alone for screening, sending only women with abnormal smears for colposcopy, with all the attendant anxiety during the waiting period. In Hungary and eastern Europe, colposcopy is a routine part of gynaecological examination.

"I use the colposcope all the time. It has a lot of advantages. It makes me sure that nothing is wrong on the cervix or the vulva or the vagina. When you examine the vagina with a speculum and explore the cervix with a colposcope as part of the gynaecological examination, the cervix is in front of you and you look and can see if it is normal or not. It is an absolutely harmless procedure.

"If the transformation zone (where precancerous epithelial changes take place) is fully visible, you can be 100% sure that nothing is wrong, that there is no cancer. In 99% of cases I can tell the patient right now that there is nothing wrong or that there is some suspicion and we have to await the result of the cytology."

Bösze is on the board of the International Federation of Cervical Pathology and Colposcopy (IFCPC), which is seeking to balance out the benefits of cytology and colposcopy. Cytology is associated with a high false-negative rate, missing 10%–15% of abnormal cervical intra-epithelial neoplasia, while perhaps half of the suspicious findings identified by colposcopy turn out to be benign.

Ovarian cancer, known as the silent killer because of lack of symptoms in its early stages, gives least grounds for optimism. Research into CA-125 screening (a blood test) and transvaginal ultrasound is discouraging. The US-based Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial reported in the *American Journal of Obstetrics and Gynecology* in November 2005 that, of 570 women who had surgery following screening, 541 did not have cancer.

Bösze says, "This is a nasty cancer and, unfortunately, the vast majority are found in an advanced stage. It is important to treat these patients in centres that can remove all the tumours from the abdominal cavity and retroperitoneum, taking out and sectioning abdominal organs. Once the tumour is out of the ovary, the only chance is to remove all visible tumours."

About 5%–10% of ovarian cancers occur in women with BRCA 1 or 2 mutation – the same genetic susceptibility that gives a higher risk for breast cancer. Women who carry this gene mutation can have their ovaries removed. Younger women can go on the pill until they are ready to conceive, and have their ovaries removed after they complete their families.

Bösze is one of the founders of the Hungarian Cancer Genetic Service, which he now heads. He believes that the common genetic link strengthens the case for gynae-oncologists treating breast cancer. The Hungarian Colleges for Surgery and for Oncology have accepted this, and gynaecological oncologists at St Stephen's operate on more than 200 women with breast cancer each year.

This fits Bösze's belief that gynaecological oncologists should be holistic and multi-skilled. "I started the practice that the gynae-oncologist should treat breast cancer. Breast cancer surgery is simple compared with radical hysterectomy or exenteration. The gynaecologist deals with all kinds of benign diseases of the breast, and a gynae-oncological examination cannot be made without palpating the breast. The important thing is you should be trained well enough and see enough patients. Patients should be treated in centres, but whether they are called breast

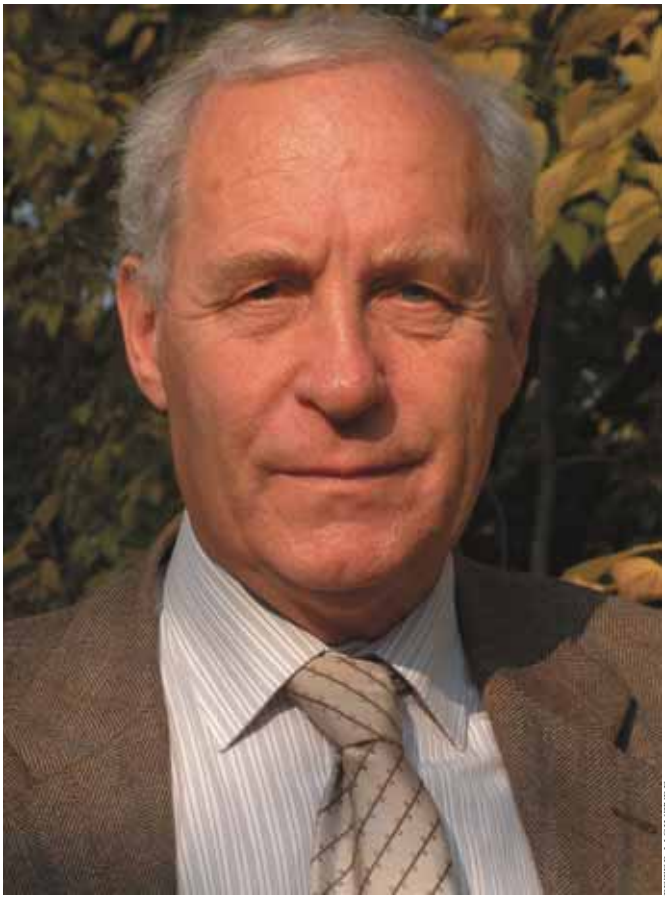
cancer centres or gynae-oncology centres does not matter."

Recognition

Bösze fought to win wider recognition for gynaecological oncologists during his presidency of the European Society of Gynaecological Oncology (ESGO), from 1997 to 1999. He approached the European Board and College of Obstetrics and Gynaecology (EBCOG) which, "after many debates", accepted that gynaecological oncology should be a sub-specialty – the first time that the European Union of Medical Specialists (UEMS) recognised a sub-specialty. EBCOG and ESGO also developed training guidelines for gynae-oncologists. He also affiliated ESGO as an associate member of the Federation of European Cancer Societies (FECS). He describes these two steps as "breakthroughs" that allowed the Society to become the voice of gynaecological oncology in Europe.

Bösze is the founding president of the Hungarian Society of Gynaecological Oncologists and editor of its journal, the *Hungarian Journal of Gynaecological Oncology*. Publishing takes an increasing share of his attention. He is joint editor in chief (with Antonio Annis) of the *European Journal of Gynaecological Oncology*, and Eastern European editor of the *European Journal of Obstetrics and Gynaecology and Reproductive Biology*.

In 1999, he founded the European Academy of Gynaecological Cancer (EAGC) to support learning. The Academy now publishes the CME *Journal of Gynaecological Oncology,* which he also started, in collaboration with the European School of Oncology. Bösze explains, "Practising clinicians very much like review articles that give an insight into a topic, but review articles usually have a page limit. My idea was to establish a journal with chapters, each devoted to a particular topic, as a kind of in-depth symposium from basic principles to latest results."



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The journal, now in its tenth year, goes out to gynae-oncologists all over the world three times a year, with contributions from specialists in many countries. In his career, Bösze has attended more than 200 congresses as speaker or chairman, and many academic gynaecological-oncologists became his friend. He laughs, "When I send an e-mail saying, 'please write an article for me,' they don't say no!"

An EAGC *Course Book on Colposcopy*, edited by Bösze with David Luesley from Birmingham, UK, was published in 2004 with

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an impressive list of 35 international contributors. *What gynaecologic oncologists should know about chemotherapy*, edited with Maurie Markman of the MD Anderson Cancer Center, Houston, was published in December 2005, and a third title will follow, on cancer and genetics.

Bösze recently founded the journal *Hungarian Medical Language (Magyar orvosi nyelv)*, to ensure that whatever happens in genetics, oncology or gynaecology, Hungarians have a word for it. Otherwise, he believes that doctors will lose touch with patients.

"The molecular biology of medicine is a revolutionary one with new terms every day, all in English. Doctors in Latin America, France, Italy, Hungary and everywhere realised that we were talking to each other in English. Our duty is to explain to a woman what we think about her disease and what management is available, so we can make this decision together. You have to explain this to her in her own language. But many terms have not got a Hungarian translation. This journal keeps the Hungarian medical language up to date and preserves the structure of the sentences.

"Medicine is science, art and language, and language partly determines your way of thinking. If you cannot use proper words, it is not only a problem for patients, you mislead your colleagues and cannot give instructions to nurses. Your national language is the key to your personal and national identity.

"This has nothing to do with chauvinism. Europe is a colourful continent because of different nations, languages and cultures with 1,000 years or more of history. I am not against speaking English – we should have a common language to understand each other. But an English-speaking Europe would be a terrible copy of the continent on the other side of the ocean."

This 21st century concern about the downside of globalisation reflects the tradition of the Hungarian Academy of Science, from where Bösze received his doctorate in 1992. The Academy – originally the Hungarian Learned Society – was founded in 1825 for 'the study and propagation of the sciences in Hungarian'. Much of its early work was spent defining technical terms for the new sciences of the 19th century. Hungarian writer and poet János Arany described its activities as "bee-like busy collection of dialectal words and technical terms … in short, aspirations to improve and expand the Hungarian language, to propagate science in Hungarian."

Just as 19th century Academy members wanted to keep up with the latest learning and at the same time to assert a national identity, so today in the 21st century Péter Bösze is leading his colleagues to do the same.

Hungarian language must keep abreast of science, or doctors will lose touch with their patients