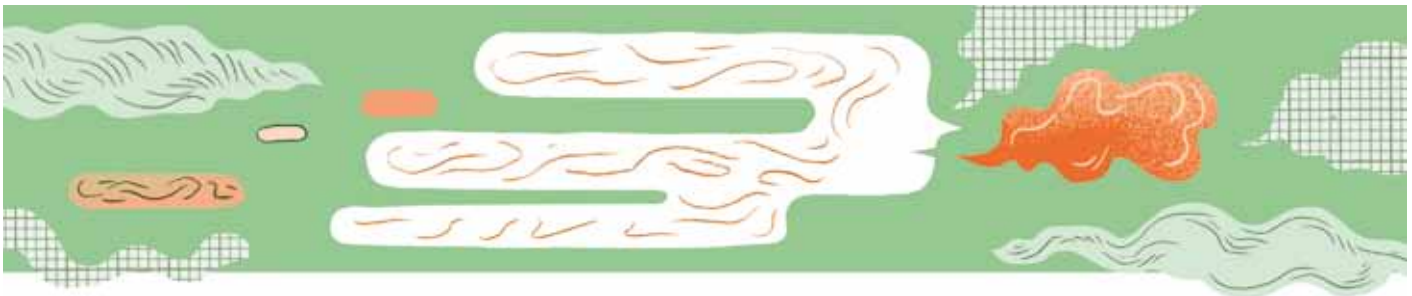

Bahadir Güllüoğlu: Driving up standards in Turkey towards the best in breast

As a young surgeon, Bahadir Güllüoğlu was drawn to specialising in breast cancer because of the opportunities that were opening up to work closely with other types of specialists, as well as with patients and their families. **Marc Beishon** talked to him about how his passion for quality, collaboration and networking is raising the standard of breast care across Turkey and the wider region.

Travelling eastwards in Europe, it is received wisdom that capacity for treating cancer decreases compared to countries such as France and Germany. This is borne out by poorer outcomes and resources, certainly in countries such as Bulgaria and Romania. But go a bit further, to Turkey – an aspiring member of the European Union – and things swing back up, which may surprise some.

This is certainly the case for breast cancer, in no small measure due to the work of Bahadir Güllüoğlu, who has helped pioneer multidisciplinary breast units in Turkey. He heads the breast centre at Marmara University Hospital, Istanbul, and is a professor at the school of medicine. His background is as a general surgeon in the 1990s following compulsory military service. It was in 1998 that he and colleagues founded the first diagnostic breast unit in Turkey – at a time when the first calls for multidisciplinary units in Europe were only just being made.

"This was a diagnostic unit, not treatment as well at this stage," says Güllüoğlu. "We had of course medical and radiation oncology in place, but for this first unit we wanted to start with diagnostic guidelines from the US and Europe, and with just three people – a pathologist, radiologist and a surgeon, which was me. We started with this because the vast majority of patients have a benign condition – 90% of patients don't have cancer, just a normal physiological change, and often just need reassurance. It was later, in 2005, that we established the other requirements for a comprehensive breast cancer unit."

Why focus on breast cancer? In the last year of his residency, in 1996, Güllüoğlu says he was much more involved in other more complex areas of surgery, such as gastrointestinal (GI). "My superiors wanted me to stay at the department, but said, 'Please don't be a general surgeon – pick a speciality, and if you can't we'll choose one for you.' After some thought, I chose not to stay with GI, but to go for breast and endocrine. It's true that GI surgery was more challenging and new laparoscopic and other techniques were coming in, and more people were interested in this,

while breast and thyroid surgery are relatively simple. In GI, you could use a lot of expensive equipment, but at that time in breast all I needed were sutures."

What attracted Güllüoğlu was a different sort of challenge: that of building patient-centred collaboration among professionals. This was something he felt he was suited for, and breast cancer was where opportunities for multidisciplinary working were opening up, as several disciplines were becoming equal partners in treatment along with surgery. In medical oncology, for example, while Güllüoğlu had long been delivering chemotherapy to patients with breast or GI cancers, oncologists were now finding their feet as a new discipline. Radiation oncologists were also playing an increasingly integral role in treating breast cancer.

What Güllüoğlu recognised is that the key work of a multidisciplinary breast unit is much more than just treating a disease – it is about human relations, communicating with colleagues and especially with patients. Of course, other cancer types have since followed breast in developing multidisciplinary approaches, but as Güllüoğlu points out, breast cancer has remained at the head of the field in terms of improvements in prognosis, thanks in large part to close international collaboration among physicians who study the biology of the disease.

This in turn has created a large community of patients and survivors who need a wide spectrum of support throughout what can be a long cancer journey – and of course they are also nearly all women, with all that entails in social and family impact, which is particularly acute in countries such as Turkey.

"I understood that the surgeon isn't the only person who can decipher codes to solve problems," he says. His idea of a team is not necessarily to have the world's best specialist in every role, but that there must be a commitment from everyone to act as mentors to replace themselves with two people who are better, and the key is to have the right people in each discipline with the all-round skills to ensure the unit develops.

The size of the problem

Breast cancer is not as prevalent in Turkey as in most of Europe. Registries currently cover half the population, and in recent years have counted an incidence of about 50 per 100,000 women, which is about half the rate in Europe and the US – although it is double the rate it used to be in Turkey in the early 1990s. One "striking finding", he mentions is that, while incidence rates were increasing up until around 2013, there is evidence they may be falling again, down to around 45 per 100,000. Another key finding regards the age of diagnosis: while in Europe around one in four or one in five cases are diagnosed in women under the age of 50, in Turkey it is about one in every two, which is important because breast cancer in younger women can be more aggressive.

"Everyone must commit to act as mentors to replace themselves with two people who are better"

Turkey does not have a national mammography screening programme, but there has been a big push in recent years to roll out early diagnosis, screening and training centres (known as KETEMs) for breast and other cancers, which offer opportunist screening. Since 2013, guidelines for breast screening recommend starting at age 40, not 50 as in most of Europe. Güllüoğlu is not in favour, arguing that there is no evidence that screening works for younger women. The rate of 'interval cancers' diagnosed between scheduled screening appointments is at least double that in older women, and breast cancers diagnosed in younger women are typically more aggressive, so local treatment is not appropriate. He cites a recent paper co-authored by leading cancer epidemiologist Philippe Autier, which examines the evidence to back this up (*Eur J Cancer* 2018, 90:34–62).

An additional problem is that younger women tend to have more dense breast tissue, which means a higher rate of recall for mammographs that are unclear. Even without these recalls, starting screening at 40 years would double the eligible population from 8 million to 16 million, which is well beyond what current capacity can handle.

Turkey is a big country with a large and growing population that will rise to about 83 million by 2023, and if it is to accommodate national invitational screening as the population ages and lifestyles become more westernised, there will be a lot of pressure on its health system.

However, breast screening rates in Turkey are still very low, at about 30%, owing to lack of awareness and resources. About one in four breast cancer patients in eastern Turkey present at an advanced stage, reflecting the lower economic development of this part of the country, and delays in treatment are common (see *Eur J Public Health* 2014, 25 1: 9–14 for a first study comparing delays with other countries). The Bahçeşehir Mammography Screening Project, a 10-year project in the Istanbul area (2009–2019), has been investigating how a population-based screening programme could work across the country. It has cut the number of breast cancers diagnosed at an advanced stage, and could be a model for other low- and middle-income countries as well as for Turkey (see *Eur J Breast Health* 2017, 13:117–122).

Europa Donna's Turkish affiliate has been active in recent years raising breast cancer awareness, as have the government and the World Health Organization, and there have been events such as a 'walking for the cure' across the Bosphorus Bridge, one of the bridges famously connecting Europe and Asia across the Bosphorus straits. Improving health literacy is key to improving services Güllüoğlu believes: "If society knows what to look for, it will urge the system to go that way."

He attributes recent falls in breast cancer incidence, which is also seen in neighbouring countries, to better management of people with a genetic risk, together with improving lifestyles – healthy eating and drinking less alcohol.

Access to quality care

While awareness, screening capacity and take-up remain barriers, the good news is that there are few obstacles to accessing a specialist consultation for anyone with symptoms. "While we have a good family practitioner system, people don't need a referral – they can choose the best university clinics or private hospitals," says Güllüoğlu.

Those who do search out the hospitals with a breast cancer team will find that many are now well resourced, both in the public and private sectors. Not only are core members of the multidisciplinary team in place, but also additional types of specialist who can be in short supply in other countries, including clinical geneticists and nuclear medicine specialists. "The equipment expected in the best centres is available too, such as gamma probes for sentinel lymph node biopsy, and digital mammography. Intraoperative radiation treatment is also available, as is molecular biology in the pathology labs."

Turkey also operates reimbursement programmes for most drugs, and, as Güllüoğlu points out, the country attracts a lot of health tourism, because charges tend to be a lot lower than in some other countries. The more than 2 million Syrian refugees currently living in Turkey get access to the same healthcare as Turkish citizens, adds Güllüoğlu, with costs reimbursed by government funds. "We are certainly much better off than our neighbours such as Greece or Romania," he says. "But will it be the same in future? We don't know. And there is still a lot to do to establish breast units as externally accredited centres of excellence."

Is there a barrier to being a male doctor seeing female patients? "I've never seen a female patient who didn't see me as a doctor. We are a Muslim country, but that is a bit separate from being a Turk; it is true though that secularism is declining currently. Of course, some patients prefer female doctors, but more often they look for the best of either gender. I find also their male relations trust you as a brother and a guardian of the woman."

Güllüoğlu with a group of nurses who have just completed the breast nursing course organised by SENATURK, January 2018

Improving outcomes

Building momentum to ensure facilities and expertise are not lost, but developed further, is a key aim for Güllüoğlu. He wears a lot of 'hats', and highlights in particular being president of the Turkish Academy of Senology (SENATURK) – "It's an independent body for breast diseases, not a government institution, which we established in 2011. It comprises mostly breast surgeons, but also other professionals in the multidisciplinary team."

> "If society knows what to look for, it will urge the system to go that way"

SENATURK, he says, was a logical development of meetings among professionals in the Istanbul area that he and colleagues had started in 10 years ago. "Our aims are to give education to breast cancer professionals, to do both medical and social research, and to tackle quality issues – that is very important because in Turkey (and the region) there are currently no quality metrics for breast cancer diagnosis and treatment.

"We are also working on centres of excellence. But it all starts with quality guidelines, then you teach them to people, and you need input from social and clinical research – and then you can implement a centre."

SENATURK, adds Güllüoğlu, is not just for Turkey; it has collaborations with more than 20 other countries in the region, including Greece, Bulgaria, Egypt and Lebanon – there is a particularly close relationship with Egypt, at least with professional colleagues, not between governments. Other organisations he has been involved with in the region include the European Asian Society of Breast Diseases (EURAMA) and the Mediterranean Mobile University of Mastology (MANOSMED).

SENATURK organises a range of training programmes in Turkey. The one on oncoplastic surgery enrols 50 surgeons a year from the region, with the aims of improving patients' quality of life and bringing surgeons up to the same standard of care now widely available in more well-off countries.

"Historically our only outcome was survival, and we are now lucky in breast cancer in giving most women a long survival, of 10, 20 and more years. But there are consequences to the treatment, and the main issue is now quality of life and to maintain normal appearance of the breast, as long as survival is not compromised."

Specialist surgery

It has been known for some time that, in the right patients, breast conserving surgery with radiation is as effective as mastectomy, but breast reconstruction is not easy

and can have complications. Breast conserving surgery with oncoplastic techniques is preferable, but it needs training if it is to become widely practised as a standard of care. "Sometimes the breast is very big and needs a large resection. If you can decrease the size of the breast, that's good for radiation treatment and quality of life." It does, however, also require reducing the other breast. "Resection with symmetrisation gives very good outcomes as long as surgery is a mainstay of treatment," says Güllüoğlu. The aim is to offer patients "breasts without defects, not excellent breasts", and not raise expectations too high, as a paper on the oncoplastic surgery course notes (*J Breast Health* 2017, 13:46–49).

Since 2010, Güllüoğlu has been an examiner for the European Board of Surgery (part of the European Union of Medical Specialists, UEMS). There is certainly a challenge in raising standards in Europe – the pass rate of the breast exam is usually about 70%. The standard to pass is that of a junior consultant breast surgeon, but also requires knowledge of reconstruction, oncoplastics and the latest breast research. It's not a practical exam – it's oral and written and, in Güllüoğlu's view, it is the least that should be done to test surgeons. Patients should have no hesitation in asking about their surgeon's qualifications, he says.

"There are no quality metrics for breast cancer diagnosis and treatment in the region"

He is also involved with the Senological International Society and European Academy of Senology, and he co-chairs the International Istanbul Breast Cancer Conference (Breastanbul). In short, he brings a lot of networking to his country.

Nurse specialists

Another course is on breast cancer nursing. "Breast nurses are important in the team – maybe the most important as they are navigating the patients and can help relieve the queue at my door, and they provide much needed psychological and social support. They help the relatives as well as the patients. We have taken the curriculum of the European Oncology Nursing Society and set up a 14-week course, for two days a week, with teaching on one day and the second day in the hospital, in the operating theatre, on the ward, and in the radiotherapy suite and the geneticist's consulting room. At the end we test them, and if they pass they have a certificate from the university. It's the only such course in Turkey, and we have had nurses from a number of countries including Iran, as word has got around."

"We have trained nurses from a number of countries including Iran, as word has got around"

Research

One area where Turkey does lag is in international research. Güllüoğlu and colleagues have been involved in the EORTC Breast Cancer Group and in trials such as the MINDACT project for sparing adjuvant chemotherapy, and have learnt a lot. Yet there is little currently in train, at least at international level. An obstacle is that ethics committees at Turkish hospitals do not like signing off on projects where the research is not instigated locally.

Despite the general lack of progress in metastatic disease, Güllüoğlu is optimistic. "We haven't seen anything yet; we are still at the beginning of the journey. Now we talk about 'early' and 'late' breast cancer – in future we will be talking about 'good' and 'bad' disease, as we get better at targeting, and maybe we won't even need surgery anymore for some cases if we can solve the biology. It's important to look back at the trends and see the significant progress we've made with drugs such as tamoxifen and trastuzumab, and the decline in mastectomies, and of course the rise in breast units.

"When I present at conferences I refer to myself as a breast physician, not a surgeon, partly because we treat a lot of benign disease too, but also because the other disciplines such as radiation and medical oncology are playing leading roles now. Radiation oncologists can now give some primary treatments instead of surgery. But I envisage that in future we may not be dividing the team into the same specialists, but talking about multiskilled breast physicians, or such like.

There are always problems, including increasing numbers of patients, he says. "But I love my profession – I would pick being a breast physician again if not a surgeon." … Or perhaps an engineer, chemist or psychologist? Apart from all the national and international breast cancer work, Güllüoğlu is involved with projects as diverse as building a physical teaching model for breast surgery, particle-based treatment delivery, and wellbeing and psycho-oncology research, at local institutes. If it can potentially contribute to driving up quality in breast care, Güllüoğlu will embrace it.

To comment on or share this article go to bit.ly/CW82_Gulluoglu_breast