The Turkish Society of Cardiology

"Preserving the Cardiovascular Health of the Turkish Population by Supporting Professional and Public Education and Research"

Oktay Ergene, MD, FESC, FACC, FSCAI, president of the Turkish Society of Cardiology and professor and chief of cardiology, Department of Cardiology, Izmir Ataturk Education and Research Hospital, Izmir, Turkey, describes the Society and its work to Jennifer Taylor, BSc, MSc, MPhil.

The Turkish Society of Cardiology was established in 1963 by a board headed by Professor Muzaffer Esat Guchan, MD. It has been a member of European Society of Cardiology and the World Heart Federation since 1964. From its foundation until the end of 1990s, it was led by nearly the same group of staff. “The number of cardiology specialists in Turkey was limited and the structure of the organisation was traditional,” explains Oktay Ergene, MD, FESC, FACC, FSCAI, president of the Turkish Society of Cardiology and professor and chief of cardiology at the Department of Cardiology, Izmir Ataturk Education and Research Hospital, Izmir, Turkey.

Cardiology specialisation training, which was a sub-branch of internal medicine in the 1960s, informally became a separate department after 1974. With the reorganisation of universities in 1990, it earned the status of a separate department in all university medicine faculties in Turkey. The quality and number of cardiologists have since increased in Turkey and worldwide. The situation stimulated new institutional, administrative, and structural demands from the Turkish cardiology community, and it was against this background that Professor Ergene was elected as an executive board member at the General Assembly of the Turkish Society of Cardiology in 2000.

Professor Ergene says, “In this past decade, which can be called the transformation period, previous presidents Professor Ali Oto, MD, Professor Cetin Erol, MD, president-elect Professor Omer Kozan, MD, and my young colleagues undersigned important institutional, administrative, and structural innovations and achievements.” They ended the past situation of long-term presidencies and administrative staff, and set shorter periods of service. In 2008, they adopted the president-elect system used by a number of other national societies in Europe.

In 2002, the Society defined its mission: “to preserve the cardiovascular health of the Turkish population by supporting professional and public education and research,” and formulated its first strategic plan as follows.

- To provide leadership in research in cardiology.
- To generalise and institutionalise continuous education in cardiology and undertake an active role in the procurement of accreditation.
- To improve public awareness of the Turkish nation in protecting against cardiovascular diseases.
- To improve and provide the audit of good clinical practices in cardiology.
- To take an active role in developing the policies concerning cardiovascular health in Turkey.
- To increase the brand awareness of the Society nationally and internationally and reinforce its corporate identity.

As a result of the complex restructuring, an important and inevitable step was taken at the end of 2004 when, like...
many societies of a similar scale, a general manager (Ahmet Ünver), was appointed to run the organisation.

That same year, the Turkish Board for Accreditation in Cardiology (TBAC) was established as an autonomous entity. The Turkish Society of Cardiology provides the board with full financial and logistical support. To date, the TBAC has held eight qualifying and 19 certifying examinations for cardiologists on a voluntary basis, and issued 605 accreditation certificates. The board recently started a Specialty Training Accreditation System; the Cardiology Departments of four universities have successfully passed all of the auditing procedures and will be awarded the first certificates in this field.

In 2006, the National Cardiovascular Health Policy was prepared by the Society and submitted to the Ministry of Health, which published the document in 2007. The battle against cardiovascular diseases has since been a state policy.

In 2007, the European Heart Health Charter was signed by the concerned societies and the Turkish minister of health. Within this initiative, in 2008, the country’s “Action Plan Against Smoking,” and in 2010, its “Action Plan Against Obesity,” were put into practice by the Ministry of Health. “Diabetes 2020” is another result of this programme. The Society participated in the EuroHeart project, and its Task Force for Women and Heart Health is involved in this area.

“Improving awareness of prevention against cardiovascular
“diseases” is one of the Society’s strategic objectives. Since 2005, with this aim, and using mass media, particularly television and radio, the importance of cardiovascular diseases and the principles of prevention have been explained to the public. Professor Ergene says, “This activity, which is still on the agenda with increasing intensity, is important for public health and increases the public image of the Turkish Society of Cardiology to turn it into a major brand.”

In 2006, the Society’s national congress was accredited by the European Board for Accreditation in Cardiology and the Turkish Medical Association. In 2009, >8000 physicians participated in 24 continuous medical education programmes from the Society, which were accredited by the Turkish Medical Association and European Board for Accreditation in Cardiology.

In 2009 and 2010, the Turkish Society of Cardiology national congress was held in Istanbul and attracted >4000 participants. Each year, the congress receives an increasing number of abstracts, and hosts more delegates from other countries. In 2010, the Society had nearly 2000 members.

Scientific collaboration with international organisations is increasing, and one of the Society’s top objectives is to see its members gain places on the executive boards of professional scientific societies in Europe and the United States. Professor Muzaffer Degertekin, MD, president of the Turkish Association of Percutaneous Cardiovascular Interventions, was elected as a member of the European Society of Cardiology board in 2010.

To develop specific projects and closer cooperation with neighbouring countries, the Turkic World Cardiology Association was founded in 1999, with permanent secretariat provided by the Turkish Society of Cardiology. Joint meetings have been organised with Azerbaijan, Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, Bosnia Herzegovina, Georgia, Kosovo, Syria and Greece, and will continue in 2011.

Last year, cardiology specialisation training in Turkey was shortened to 4 years to increase the number of cardiologists, which, says Professor Ergene, “is insufficient, especially when considering the fast pace of development in research, clinical practice, diagnostics and therapeutics.” Efforts are underway by the Society to expand the training period to a minimum of 5 years, preferably 6 years. The Society is also attempting to persuade the authorities to add subspecialisation training in interventional cardiology and electrophysiology and arrhythmia (at least 2 years for each), and in the short run to begin Certification Programmes in these fields. Professor Ergene says, “We should develop objective and satisfactory qualifying and certifying systems in these fields requiring further expertise.”

The Turkish Society of Cardiology will continue to put pressure on the authorities to make these changes. The Society will also continue to collaborate with the government on establishing a practical registry system so that the data can be used to develop realistic health policies. A joint effort is underway to develop a form for registering interventional operations throughout the country.
Spotlight: President of the Turkish Society of Cardiology, Oktay Ergene, MD, FESC, FACC, FSCAI

Oktay Ergene, president of the Turkish Society of Cardiology and professor and chief of cardiology, Department of Cardiology, Izmir Ataturk Education and Research Hospital, Izmir, Turkey, talks to Jennifer Taylor, BSc, MSc, MPhil.

A Leading Role in the Turkish Society of Cardiology Since 2000

Oktay Ergene, MD, FESC, FACC, FSCAI, president of the Turkish Society of Cardiology and professor and chief of cardiology at the Department of Cardiology, Izmir Ataturk Education and Research Hospital, Izmir, Turkey, trained in cardiology at the Kosuyolu Cardiovascular Diseases Hospital, Istanbul, Turkey, from 1990 to 1992. It was the happiest time in his working life.

Professor Ergene says, “I was enthused by the amazing improvements in the field of cardiology, with mechanical revascularisation and coronary stents.” The first coronary stent application in Turkey took place at the Kosuyolu Hospital during his training. He recalls, “I think that this had a positive influence on my teaching career, and I hope to transfer this spirit of innovation and enthusiasm to my students in the clinics where I have worked.”

Born in 1956 in Ankara, Turkey, Professor Ergene completed his primary education in Erzurum in the eastern part of Turkey, where his father had been appointed to set up Ataturk University in 1957. He left high school in 1974, and, with the encouragement of his family, he chose to study medicine, graduating from Ataturk University’s Faculty of Medicine, Erzurum, Turkey, in 1980. Between 1981 and 1985, he trained as an internal medicine specialist at the same university and met and married Ulku Ergene, MD, now professor and head of the Department of Haematology at Celal Bayar University, Manisa, Turkey.

After specialising in internal medicine—a prerequisite for his preferred subject of cardiology—he completed 2 years of obligatory military service. Then in 1990, with his wife’s encouragement, he left his family in Antalya, Turkey, to specialise in cardiology at the Kosuyolu Heart and Research Hospital in Istanbul, one of the two best centres in Turkey for cardiology at that time. This was the first step in Professor Ergene’s cardiology career, and it was followed by an associate professor of cardiology post in the Department of Cardiology, Medical Faculty, Dokuz Eylul University, Izmir, in 1993.

To move his academic career forward, in 1999, he left for Suleyman Demirel University, Isparta, the home town of the ninth president of Turkey, Suleyman Demirel, where he set up the university’s Heart Centre, with the financial support of the president’s brother, Sevket Demirel, who worked in manufacturing. Professor Ergene became a full professor of the university, where he was chief of the Department of Cardiology and chief physician of the Heart Centre until 2002, when he took up his current post in Izmir, which, he says, is “one of the most beautiful cities in western Turkey.”

During his career, Professor Ergene has been inspired by Professor Aydogan Albayrak, head of the Internal Medicine Department at Ataturk University and a specialist in oncology and haematology, and Professor Mehmet Ozdemir, MD, chief physician of Kosuyolu Cardiovascular Diseases Hospital. He says, “Their common trait was that they had their heart in their work.” Professor Ozdemir was the first physician in Turkey to perform coronary angiography in 1974, and he taught his students, among them Ergene, the skills he had learnt personally from F. Mason Sones, MD, the inventor of coronary angiography.

Professor Ergene’s primary interest is invasive cardiology and echocardiography. He works with 3 colleagues in a catheter lab, which each year carries out nearly 2500 coronary angiographies and right and left heart catheterisations and >600 interventions (balloon angioplasty, stenting, percutaneous balloon mitral valvuloplasty, and renal, iliac and subclavian stenting). Since 2006, they have provided percutaneous closing procedures for ventricular septal defect, atrial septal defect, and patent ductus arteriosus. They also perform intravascular ultrasound procedures.

The echocardiography lab has 3 sonography machines (including 1 portable device), which are used to perform 10,000 echocardiography procedures per year, including 500 transesophageal echocardiographies and 100 dobutamine stress examinations. Nearly 2500 exercise tests, 800 holter ECG monitoring procedures, and 500 tilt tests are performed each year in the noninvasive lab.

Professor Ergene has published on invasive cardiology and echocardiography, and was a member of the EUROASPIRE III Turkey Study Group. His involvement with the Turkish Society of Cardiology began in 2000 when he was elected as a member of the Executive Board, serving as a councillor for 2 years. From 2002 to 2006, he was general secretary, and in 2008, he became president-elect.

Jennifer Taylor is a freelance medical journalist.
Young Investigator Spotlight: Alexios S. Antonopoulos, MD

“For his PhD, Alexios S. Antonopoulos, MD, a PhD student in the 1st Cardiology Department, Hippokration Hospital, Athens Medical School, Athens, Greece, is studying the impact of genetic variability of the adiponectin gene on endothelial function and systemic inflammation in patients with coronary artery disease. Recently, at the 2010 European Society of Cardiology Congress in Stockholm, Sweden, Dr Antonopoulos won the Young Investigator Award for Coronary Pathophysiology and Microcirculation for his innovative research work on the vascular effects of adiponectin in humans.¹ Using translational research and a genetic model that alters perivascular but not circulating adiponectin levels, he demonstrated, with his colleagues, how the paracrine activity of perivascular adipose tissue can modify vascular redox state and global vascular function in the vessels. Dr Antonopoulos explains, “This work suggests that the cross-talk between adipose tissue and the vascular wall may be highly important in cardiovascular disease development in humans.””

¹ Dr Antonopoulos’ interest in adiponectin and cardiovascular disease has been further highlighted in a review article on the topic.²

“It Is an Honour and Exciting to Feel Part of This [Global Research] Community”

Dr Antonopoulos Sr is a chest physician, and Dr Antonopoulos can remember sitting in his father’s office, watching him examine patients. He says, “I was taught by my father to love this physician/patient interaction. Aristotle used to say that a philosopher should begin with medicine and the physician should end with philosophy. That is how I like to see the physician’s role, from the widest standpoint.”

After Dr Antonopoulos graduated in medicine from Athens Medical School in 2006, he was admitted to the 1st Cardiology Department of Hippokration Hospital as a PhD student by Christodoulos Stefanadis, MD, professor of cardiology and dean of the medical school. There, he met the two most important people in his research career: Dimitris Tousoulis, MD, an assistant professor in the department and Charalambos Antoniades, MD, now a post-doctoral research fellow at the University of Oxford, Oxford, England.

Dr Antonopoulos says, “Professor Tousoulis’ research group is the leading one in cardiovascular research in Greece, and among the leading groups in Europe. I could not have found a more appropriate person to embark with on my journey in cardiovascular research. From the beginning, his support has allowed me to carry out all the projects in an efficient and a confident way.”

Dr Antonopoulos has worked in a number of collaborative studies between Professor Keith Channon’s group at the University of Oxford and Dr Antoniades’ group at the University of Athens. His main field of interest is endothelial dysfunction and the study of vascular redox state. In a study of asymmetrical dimethylarginine (ADMA) in patients undergoing coronary artery bypass grafting operation, it was demonstrated that when levels of circulating ADMA are high, eNOS is uncoupled in the grafts of these patients.³ High levels of ADMA in the plasma were associated with worse vasorelaxation of the grafts to acetylcholine and higher superoxide generation in the saphenous veins and internal mammary arteries. Dr Antonopoulos says, “This article provided some mechanistic findings about the role of ADMA in vascular biology in humans. Rather than being an eNOS inhibitor, as it was considered up to that time, we demonstrated that it is associated with greater eNOS uncoupling in human vascular endothelium.”

Also in patients undergoing coronary artery bypass grafting, the research group has studied the role of the soluble...
form of CD40 ligand (sCD40L), a proinflammatory marker that activates platelets. They found that circulating plasma levels of sCD40L were an independent predictor of postoperative atrial fibrillation, independent of demographic risk factors, vascular redox state or superoxide anion generation.4 sCD40L is not tested in clinical practice, but Dr Antonopoulos says it is relatively easy and cheap to measure and possibly also a valuable biomarker.

The group also investigated the effect of statins on aspects of vascular biology for a number of years. This work culminated in an article in Circulation in 2010,5 which was the result of a collaborative project between the department in Athens and the University of Oxford started >3 years ago.

The study demonstrated that oral atorvastatin before coronary artery bypass grafting as well as exposure of grafts directly to atorvastatin ex vivo significantly reduced vascular basal and NADPH-stimulated superoxide anion generation in the saphenous vein grafts of these patients independently of any effects on low-density lipoprotein or changes in inflammatory markers. These effects were due to Rac1 inhibition of NADPH-oxidase inside human vascular wall. Dr Antonopoulos comments, “I believe that the value of these findings is that statin therapy should be maintained or at least initiated in patients undergoing coronary artery bypass graft operations, independently of low-density lipoprotein levels, because they may have a beneficial effect on the patency of vascular grafts.”

Dr Antonopoulos will soon spend 9 months carrying out obligatory military service in the Greek army, but then hopes to complete the 4 remaining years of his residency in cardiology. Becoming a good clinical cardiologist is important to him. He explains, “While being preoccupied with all this research work, I would not like at the same time to become alienated from clinical practice.” Eventually, he hopes to combine clinical medicine and cardiovascular research. His experience so far has taught him that he cannot do one without the other. He says, “I consider that all this research work in the form of published articles or congress presentations is really invaluable because it brings the worldwide scientific community closer and it guides tomorrow’s clinical practice. Indeed, it is an honour and exciting to feel part of this community.”

References


Jennifer Taylor is a freelance medical journalist.