HANDS ON COURSE FOR 3D ECHOCARDIOGRAPHY
Oct 17, 2019 – Oct 19, 2019
TC HEALTH MINISTRY: ISTANBUL SULTAN ABDUL HAMIT HAN RESEARCH AND TRAINING HOSPITAL

ISCU (International Society of Cardiovascular Ultrasound) Sakarya University University of Health Sciences TSC (Turkish Society of Cardiology)
What will you learn?
- To gain familiarity with the technique and performance of 3D Echocardiography
- To understand the usefulness of 3D Echo in clinical day to day practice and during interventional procedures
- To gain knowledge of its limitations and how to overcome them

Educational methods
Hands-on, Lectures, On-site

Who is this course for?
Cardiologists
17th October-Thursday- Introduction to 3D and TOE

08:00-09:00: Registration
09:00-09:10: Welcome and Introduction of the Course – Nurgül Keser, Navin C. Nanda
09:10-09:30: Session I: Basics of Transoesophageal Echocardiography
    Chair: Lütfullah Orhan, Cihangir Kaymaz
09:10-09:40: Beginning to TOE: Sedation and Anesthesia, Probe Insertion Techniques, Instrument Controls, Instrument Manipulation - Gülay Gök
09:40-10:10: Standard Tomographic TOE views-Esophageal, Transgastric and Aortic - Alev Kılıçgedik
10:10-10:30: Physics and Image Optimization (Case based) - Mehmet Uzun
10:30-10:50: Coffee break
10:50-12:00: Session II: Basics of 3D Echocardiography
    Chair: Navin C. Nanda, Cevdet Erdöl
10:50-11:10: How 3D ultrasound works? Basic principles. Which patients would benefit from 3D TTE in day-to-day clinical practice - Navin C. Nanda
11:10-11:30: How 3D images are created? Acquisition of 3D datasets (modes and image settings, dealing with artefacts): TTE and TOE - Gökhan Kahveci
11:30-12:00: How 3D images are created? Post processing of 3D datasets (cropping, slicing): TTE and TOE - Navin C. Nanda
12:00-13:00: Lunch break
13:00-13:40: Session II: Basics of 3D (cont.)
    Chair: Nurgül Keser, Ertuğrul Okuyan
13:00-13:20: Assessing LV function with 3D (TTE) - Nihan Turhan Çağlar
13:40-14:00: Coffee break
14:00-17:00: Session III: Parallel hands-on sessions
    Knobology and acquisition of LV using the matrix probe (on volunteer case) - Philips- Alpay Sezer and Çiğdem Koca
    Knobology and acquisition of RV using the matrix probe (on volunteer case) - Philips- Elif Eroğlu and Alev Kılıçgedik
    TOE simulator - Mehmet Uzun and Gökhan Kahveci

Attendees will be divided into 3 groups:
Between 14:00-15:00; **Group A will practice LV, Group B will practice RV and Group C will practice TOE.**
Between 15:00-16:00; **Group A will practice RV, Group B will practice TOE and Group C will practice LV.**
Between 16:00-17:00; **Group A will practice TOE, Group B will practice LV and Group C will practice RV.**
Advanced applications of 3D (TTE/TOE) and TOE

09:00-10:30: Session I: Specific structural imaging with TOE (2D and 3D)
  Chair: Saide Aytekin, İlker Tekkeşin
  09:00-09:30: Mitral valve anatomy and function assessment - Alpay Sezer
  09:30-10:00: Aortic valve anatomy and function assessment - Çügdem Koca
  10.00-10:30: Tricuspid and pulmonary anatomy and function assessment - Elif Eroğlu

10:30-10:50: Coffee Break

10:50-12:30: Session I: Specific structural imaging with TOE (2D and 3D) (cont.)
  Chair: Nurgül Keser, Lutfullah Orhan
  10:50-11:10: Evaluation of pulmonary valve and right atrial structures by 3DTTE - Navin C. Nanda
  11:10-11:30: Examination of valvular prostheses with 2D/3D TOE - Münevver Sarı
  11:30-11:50: Examination of LA/LAA/Pulmonary Veins/RA/IVC/SVC - Özlem Yıldırım Sürk
  11:50-12:10: Endocarditis - Tuba Kemaloğlu Öz
  12:10-12:30: Masses and sources of embolism - Sibel Enar
  12:30-13:30: Lunch Break

13:30-17:00: Session II: Hands-on case studies of 3D TTE-TOE (pre-recorded cases on work situations)
  Chair: Navin C. Nanda, Şennur Ünal
  13:30-14:00: LV and LA quantification (from pre-recorded 3D-TTE images) - Begüm Uygur
  14:00-14:30: Mitral valve prolapse with regurgitation (orientation, cropping, MR quantification-VCA, MVQ) - Gamze Babür Güler
  14:30-14:50: Mitral valve stenosis (orientation, cropping, slicing, measuring MVA-MPR) - Alev Kilicgedik
  14:50-15:20: Mitral valve prosthesis with perivalvular leak (Leak location, cropping, measuring defect size-MPR, MR quantification) - Gökhan Kahveci
  15:20-15:40: Coffee Break

15:40-17:00: Session II: Hands-on case studies of 3D TTE-TOE (pre-recorded cases on work situations)(cont.)
  Chair: Navin C. Nanda, Nurgül Keser
  15:40-16.00: Tricuspid and pulmonary valve (orientation, cropping, TR quantification-VCA) - Tuba Kemaloğlu Öz
  16:00-16:20: Aortic valve stenosis (orientation, cropping, MPR for TAVI measurements, measuring LVOT Area-AVA) - Münevver Sarı
  16:20-16.50: Aortic valve regurgitation (orientation, cropping, MPR, measuring VCA) - Çügdem Koca
  16.50-17.10: Atrial septal defect (orientation, cropping, location, sizing, MPR, deciding for interv.) - Ebru Özpelit
19th October Saturday
Interventional 2D/3D TOE
08:30-09:30: Session I: Interventional 2D/3D TOE (Theoretical)
   Chair: Ahmet Turan Yılmaz, Lütfullah Orhan
   08:30-09:00: Interatrial septum puncture (Case based) (echocardiographer with electrophysiologist-Dual presentation)- Alpay Sezer (Echo)-Ahmet Taha Alper (Interv)- Mert İlker Hayıroğlu
   09:00-09:30: Percutaneous Mitral Interventions (Case based) (Mitraclip/Closure of Paravalvular Leaks)-Navin C.Nanda

09:30-10:00: Session II: Interventional 2D/3D TOE (Live-Case session)
   Chair: Mustafa Kemal Erol, Nihal Özdemir
   09.50-10:50: ASD closure (Live case from Cath Lab)- Müşlüm Şahin, Tufan Çınar, Muhammed Keskin
   Interventional Echo: Ebru Özpelit

10:50-11:10: Coffee break
11:10-12:00: Session II: Interventional 2D/3D TOE (Live-Case session) Cont.
   Chair: Navin C. Nanda, Cevat Kırma
   Parivalvular leak closure (Live case from Cath Lab) – Can Yücel Karabay, Mert İlker Hayıroğlu
   Interventional Echo: Gökhan Kahveci

12:15-13:00: Session III: Intraoperative 2D/3D TOE (Live-Case session from OR)
   Ahmet Turan Yılmaz (Surgeon)
   Intraoperative Echo: Mehmet Uzun- Emre Yalçinkaya

13:00-13:30 Closing remarks and future of Imaging: Navin C.Nanda, Nurgül Keser