

Intensive-Workshop
Interdisciplin. Basic Course on Color Duplex Sonography
April 4th-7th 2017 south of Cádiz, andalus. atlantic coast (ES)

Veranstalter: Marburger Bund Foundation, Berlin - in cooperation with Medical Education Dept. at Heinrich-Heine-University Düsseldorf, Germany

Faculty: Priv.-Doz. Matthias Hofer, M.D., MPH, MME, Diagnostic Radiologist

Course venue: Iberostar Royal Golfclub, Novo Sancti Petri (Chiclana), Andalusia
http://www.clubgolfrealnovosanctipetri.com/pg_10.php?lng=de

Accommodation: A list of recommended hotels close to the course site is attached; (to be booked individually by each course participant)

Preparation tasks: Please cover the precourse-assignments concerning typical flowpatterns, (prior to the course) 3D-pattern recognition - please also work through 55 short video clips, which are sent to each course participant together with the corresponding CDS Teaching Manual – please also practice the drawing exercises.

Day 1: Tuesday April 4th 2017

Time	Content	Faculty
16:30	Reception / allocation to small-groups of 5 participants / handouts	Hofer
16:45	Refresher lecture on physical basics of color-coding, beamsteering, PRF and Gain: Why adjust which parameter ? Depending on flow speed of targeted blood vessel? Live-Demo: 11-step-optimization of B-image, color and flow curves	Hofer
17:15	hands-on CDS-ultrasound exercises in small groups of 5 Steering panel: how to perform the 11-step-improvement	Instructors: Bergfelder, Hofer, Majewski, Schmidt
17:45	live-demonstration: typical flow patterns of cervical blood vessels: CCA, ICA, ECA, VA, IJV	Hofer
18:00	coffee break: fruits & cookies / sweets...	
18:15	hands-on CDS-ultrasound exercises in small groups of 5 examination of brain-supplying cervical arteries measurement of IMT (Intima-Media-Thickness) course participants examine each other with instructor`s guidance	Instructors
19:45	end of 1 st day of the course; recommended preparational task for wednesday: FKDS-Trainer, Didamed, 4 th . ed. 2013 / CDS Teaching Manual: Chapter abdominal / peripheral arteries, pp. 38-48, 75-82	

Optional dinner:

Around 20:30 at Milan`s Restaurant: "Mar Y Monte" (between Roche and N 340)
 Feel free to bring your partner or family (at your own expense)

<http://www.restaurantmarymonteconildelafrontera.es/en/>



HEINRICH HEINE
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Day 2: Wednesday April 5th 2017

Time	Content	Faculty
10:00	Deepening refresher lecture on physical basics: How can we avoid common artifacts (Aliasing & Co)?	Hofer
10:20	drawing exercises in small groups of typical flow patterns: stenotic disease of CCA; differences ACI ↔ ACE => memory-effect ↑	Instructors
10:35	Visualization of peripheral arteries, typical flow patterns live-demonstration anatomical orientation, exercise test: effects?	Hofer
10:55	hands-on CDS-ultrasound exercises in small groups of 5 peripheral arteries, exercise test on brachial artery common femoral artery, superfic./deep popliteal artery, tibial arteries	Instructors
12:15	coffee break: fruits & cookies / sweets...	
12:30	Case examples: peripheral arterial occlusive dz, criteria for stenotic degree, CEUS with contrast enhancers	Hofer
12:50	drawing exercises in small groups normal versus stenotic flow curves: intrastenotic in 90 %-stenosis, poststenotic and preocclusive patterns Hands-on deepening exercise: range of different types of syringes	Instructors
 Siesta Break 13:15 – 16:30 <i>(opportunity for hands-on exercises from 4:00 PM to 4:30 PM)</i> 		
16:30	typical flow patterns of abdominal vessels: PV, celiac trunc & SMA Live-Demonstration visualization techniques in breathhold	Hofer
16:50	hands-on CDS-ultrasound exercises in small groups of 5 portal veine, celiac trunc and SMA (superior mesenteric artery) course participants examine each other with instructor`s guidance	Instructors
18:20	coffee break: fruits & cookies / sweets...	
18:35	Clinical cases, pathological stenotic vessel disease at celiac trunk (arcuate ligament syndrome) and SMA	Hofer
18:50	Visualization of IVC and hepatic veines live-demonstration of scanning techniques in breathhold	Hofer
19:15	hands-on CDS-ultrasound exercises in small groups of 5 IVC (inferior vena cava) and hepatic veines (part 1)	Instructors
19:45	End 2 nd day of the course; recommended preparation for thursday: FKDS-Trainer, Didamed Verlag, 4 th ed. 2013 / CDS Teaching Manual Aorta (pp. 35-37) and peripheral veines, pp 83-90	

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Day 3: Thursday April 6th 2017

Time	Content	Faculty
10:00	Clinical cases concerning IVC-thrombosis and portal hypertension	Hofer
10:15	hands-on CDS-ultrasound exercises in small groups of 5 IVC (inferior vena cava) and hepatic veins (part 2); alterations in case of atrial fibrillations and right ventricular failure	Instructors
11:00	drawing exercises in small groups of typical flow curves: IVC / hepatic veins: changes in case of atrial fibrillation / RVF?	Trainer
11:20	coffee break: fruits & cookies / sweets...	
11:40	free hands-on exercises in small groups of 5 participants: What would you like to practise again? OSCE-simulation	Instructors
	<p>Siesta Break 13:15 – 16:30 <i>(opportunity for hands-on exercises from 4:00 PM to 4:30 PM)</i></p> <p><i>Please choose your underwear for the afternoon adequately, so that we can also perform ultrasound in the inguinal region, thanks !</i></p>	
16:30	typical flow patterns of peripheral veins: femoral, popliteal, tibial vv. Live-Demonstration visualization techniques, Valsalva maneuver	Hofer
17:00	hands-on CDS-ultrasound exercises in small groups of 5 peripheral veins at lower extremity, exclusion of deep venous thrombosis (DVT)	Instructors
18:15	Clinical cases of DVT, estimation of onset of thromboses	Hofer
18:30	coffee break: fruits & cookies / sweets...	
18:45	Systematic scanning of the aorta: Differences in suprarenal ↔ infrarenal flow patterns; live-demonstration in breathhold	Hofer
19:00	hands-on CDS-ultrasound exercises in small groups of 5 suprarenal versus infrarenal aortic flow patterns	Instructors
approx. 19:45	End of 3rd course day; recommended preparation for Friday: FKDS-Trainer, Didamed Verlag, 4 th ed. 2013 / CDS Teaching Man. Chapter on nephrology: pp.49-55	

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Day 4: Friday April 7th 2017

Time	Content	Faculty
9:00	Refresher on renal vessel anatomy, accessory renal arteries, live-demonstration PSV-measurement at aortic origins of renal aa.	Hofer
9:20	hands-on CDS-ultrasound exercises in small groups of 5 PSV-estimation (Vmax) on both sides	Instructors
10:20	Clinical cases: aortic aneurysm / renal artery stenosis	Hofer
10:35	drawing exercises in small groups of renal artery anatomy: → memory-effect ↑	Trainer
10:50	coffee break	
11:10	Measurement of intrarenal RI at interlobar arteries live-demonstration	Hofer
11:30	hands-on CDS-ultrasound exercises in small groups of 5 intrarenal RI-values (until 12:15)	Instructors
12:15	Clinical cases on poststenotic RI-decrease	Hofer
Break 12:30 – 13:15 / 13:30		
In the break	Course evaluation, Feedback of course participants to faculty and instructors: → course concept / teaching and training formats; overview OSCE-assessment, assignment to exam-groups	Participants
13:15	Handing out of certificates of attendance (people without exam) Participant <u>without</u> OSCE will complete the course at 13:30	without OSCE
13:30	final OSCE assessment with specific feedback = objective structured clinical examination (rotational parcours) Group 1	Instructors
14:15	final OSCE assessment with specific feedback = objective structured clinical examination (rotational parcours) Group 2	Instructors
15:00	End of course, handing out of certificates of successful attendance	

Have a safe trip home and / or a nice weekend in Andalusia !