VASCULAR RESEARCH TOOLS 5
(Investigational use version)

mia-llc
MEDICAL IMAGING APPLICATIONS

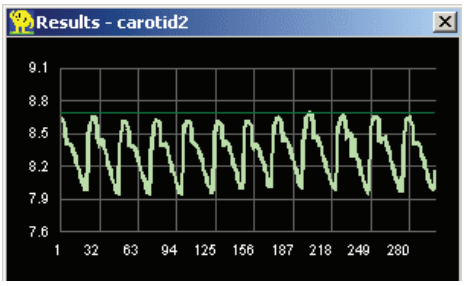
a family of products that contribute to quantitative assessment of
cardiovascular risk and atherosclerosis

FDA approved version for clinical use is available - called Vascular Tools 5

- Quantitative analysis of endothelial function via measurement of Flow Mediated Dilatation (FMD) of brachial arteries
- Quantitative analysis of Intima-Media Thickness (IMT) in carotid arteries
- Quantitative analysis of vascular compliance and plaque echogenicity
- Quantitative analysis of blood flow velo- city from Doppler blood flow waveforms
- DICOM 3.0, Philips Sonos (HP, Agilent) digital DSR-TIFF, AVI, JPEG compatibility
- Image digitization directly from ultrasound machine or videotape
- MS Excel and SAS output compatibility
- Used at over 70 primary research institutions world-wide

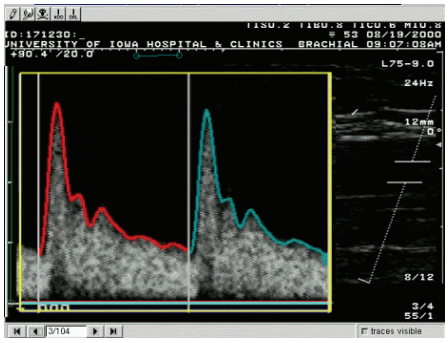
1 VASCULAR COMPLIANCE

- Distensibility/compliance can be measured in brachial, carotid, or any other artery imaged with ultrasound
- Distensibility is determined from maximum and minimum diameters measured during one or more cardiac cycles of the analyzed sequence



2 DOPPLER FLOW ANALYZER 5

- Envelope of Doppler velocity spectrum is automatically determined in R-wave recorded image data
- Maximum blood velocity and blood velocity integral are calculated for each cardiac cycle



3 VASCULAR IMAGER 5

- Digitization of video-signal directly from ultrasound machine, or off-line from videotape (or any other video-source)
- 3 modes of acquisition – Timed (specified number of frames per second), Gated (triggered by R-wave signal), Manual (at time instants specified by operator)
  EKG-gated acquisition possible whenever R-wave pulse signal is available – using EKG gating module
- EKG gating also possible from video-tape-stored sequences as long as R-wave pulse signal was recorded on tape's audio track during acquisition

4 VASCULAR IMAGER 5

- Image input modules are available to read digital images and image sequences in formats used by major manufacturers
- DICOM 3.0, Philips Sonos DSR, single-frame CRI digital data, AVI, TIF, CRI, JPEG, BMP, RAW. are directly readable using format-specific modules

5 MODULARITY

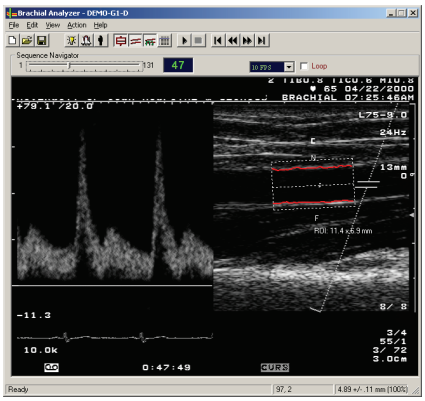
- The vascular ultrasound image analysis systems can be configured to meet your exact needs
- Integrated workstations or individual system components are available
- All software components use a common and intuitive user interface

VASCULAR ULTRASOUND ANALYSIS WORKSTATIONS
(Investigational Use Version)

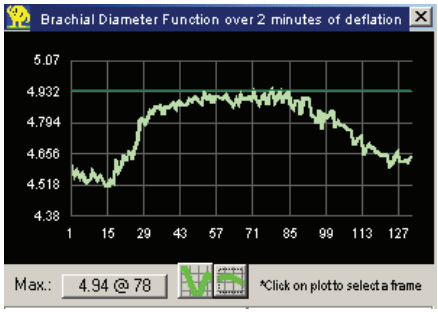
MEDICAL IMAGING APPLICATIONS

- Integrated workstations offer a variety of configurations and provide turn-key functionality
- Typical configurations include Brachial and/or Carotid Analysis, as well as Frame Grabbing and Digital Data Input modules
- Workstations are configured with large disks & memory, high-quality displays, with next-day service warranty

1 VASCULAR TOOLS 5 AND CARDIOVASCULAR DISEASE



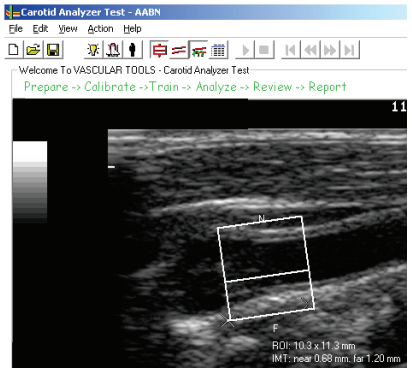
- Automated analysis of brachial ultrasound image sequences
- Continuous measurement of brachial diameters - M-line to M-line in all image frames of R-wave gated or non-gated sequences
- Extensively independently validated
- Tailored to most common FMD image analysis protocols

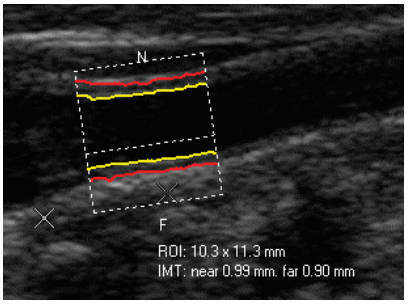


2 CAROTID ANALYZER 5 FOR RESEARCH

- Highly automated measurement of IMT in carotid arteries
- IMT measurement of near and far walls in carotid common, carotid internal, and carotid bifurcation
- Average, maximum, and minimum IMT reported for each frame
- Plaque echogenicity/composition

Quantitatively validated





Medical Imaging Applications, LLC
832 Forest Hill Dr., Coralville IA 52241
phone: (319) 358-1529, fax: (319) 688-5296
For more information or to request a DEMO, e-mail us at info@mia-llc.com