



A Change of Heart: Sudden Death in Athletes

In 1990, Hank Gathers, a standout basketball player at Loyola Marymount University in Los Angeles, was likely to be drafted as one of the first 27 college players during the National Basketball Association (NBA) professional draft. During a mid-

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Internal Medicine News

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OPTICAL STETHOSCOPES SHOW PROMISE

New Ultrasound Devices Permit Point-of-Care Echocardiogram

BY BRUCE JANCIN
Denver Bureau

NEW ORLEANS — Expert cardiac diagnosticians have long wrung their hands over American physicians' declining auscultatory skills. Now a high-tech solution may be at hand.

A new generation of highly portable ultrasound devices makes it feasible for physicians to perform point-of-care echocardiography as part of routine physical examination.

In early clinical evaluation, these devices are performing admirably as "optical stethoscopes," markedly improving

36 patients with a wide range of clinical cardiovascular findings. To keep physicians on their toes, he threw in six subjects free of known cardiovascular disease.

Four cardiologists with level-2 training in performance and interpretation of echocardiographic studies evaluated all 42 subjects. First they performed a complete cardiovascular physical examination with bedside auscultation and recorded their diagnoses.

Next they used the SPUD to do a two-dimensional and color Doppler echo exam. Finally, all subjects underwent a conventional echocardiogram

deemed by Dr. Spencer and coinvestigators to be of major clinical importance.

Physical examination failed to detect 59% of all cardiovascular findings and 43% of major ones. When armed with a SPUD, the same physicians missed only 29% of all cardiovascular abnormalities and 21% of major ones.

The SPUD proved superior to physical examination in detecting systolic and diastolic murmurs, left ventricular systolic dysfunction, and mitral valve prolapse. Using physical exam only, at least one investigator missed the ventricular septal defect in both study patients with that diagnosis. Using the SPUD, all four condi-