ABSTRACT

SYSTEM FOR IMPROVED HEMODYNAMIC DETECTION OF CIRCULATORY ANOMALIES

The invention generally relates to a system, and apparatus for detection of circulatory anomalies in the mammalian body. Particularly, apparatus is provided that allows the clinician to quantitatively determine the extent of any anomalies in the pulmonary circulation. Specifically a quantifiable agent is injected into a peripheral location, and the transit of the indicator agent is monitored. Aberrant circulation is then quantified. The preferred indicator is an injection of indocyanine green dye, detected and measured by fluorescence at a sensor location. Sensor arrays are provided that allow for optimization of detection of circulatory anomalies. Quantification is carried out by a monitor/controller providing visual cues to the patient and operator, said monitor/controller actuable for carrying out a Valsalva maneuver, and a displaying shunt conductance index.

FIG. 1