

Hemodynamics in a modern catheterization laboratory

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Hemodynamics as part of cardiac catheterization is a somewhat forgotten art of recording blood pressures at different levels of the heart cavities¹. That is why the idea of our work is to refresh knowledge and remove any dust from that "artwork". Before the advent of modern ultrasounds and other diagnostic devices, the diagnosis itself relied to an extremely large extent on the finding of "microcatheterization of the heart". Today's new methods that we introduce in catheterization laboratories, such as PFO occluders, TAVI implantation, and PVI intervention, in addition to the standard number of daily coronary angiographies, their basic support and confirmation for the performance are in an inadequate hemodynamics of the heart². When recording and performing this examination with the help of the most modern digital hemodynamic devices, we need to stick to the basic principles of aseptic work, the basis of heart catheterization with all its legalities and compliance performing cardiac invasive procedures. Knowledge of typical amplitudes of the pressure curve, basal pressure values of the right atrium (RA), right ventricle (RV), pulmonary artery (PA), pulmonary capillary wedge (PCW), left atrium (LA), left ventricle (LV), aortic systemic pressure (AO), and abnormalities in certain diseases and arrhythmogenic conditions are extremely important to us. As an emphasis on precise hemodynamic measurements, we emphasize absolute knowledge and safe handling of the hemodynamic station, the importance of correct and accurate "zeroing" of the sensor for converting mechanical force of blood pressure into a digital record, and an adequate and completely secured from any obstacles (thrombus, air emboli, or inadequate construction) lumen of the catheter with which we reach all levels of the heart and output structures in the very near future. Adherence to all these step-by-step procedures is the basis for the hemodynamic measurements we perform safely, accurately, and precisely.

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LITERATURE

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