P94: DAPAGLIFLOZIN ACUTELY RESTORES ENDOTHELIAL DYSFUNCTION, REDUCES AORTIC STIFFNESS AND RENAL RESISTIVE INDEX IN TYPE 2 DIABETIC PATIENTS: A PILOT STUDY

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SIMULTANEOUS INVASIVE AND NONINVASIVE MONITORING OF CENTRAL BLOOD PRESSURE ON CRITICALLY ILL PATIENTS SUFFERING FROM CARDIOGENIC SHOCK TREATED WITH IABP
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Intraaortic balloon counterpulsation (IABP) is a method of temporary mechanical circulatory support in patients suffering from cardiogenic shock to improve the balance of myocardial oxygen supply and demand by using systolic unloading and diastolic augmentation. Arteriograph is an invasively validated oscillometric device which measures central blood pressure (SBPao) noninvasively. The recently developed Arteriograph24 is a combination of a 24-hour BP-monitor and a single-measurement Arteriograph which provides both 24-hour peripheral and central BP profile. Comparison of simultaneous invasive measurements by IABP and noninvasive ones by Arteriograph of SBPao was never published yet.

Aim: The aim of this work was to compare the SBPao values measured with these two modalities.

Subjects and method: 11 severely ill patients placed on IABP were included into this study. Noninvasive monitoring of SBPao was carried out by Arteriograph24 simultaneously with IABP. Descriptive statistics were calculated for both measurements and the variables were indicated as means and standard deviations. Linear regression analysis was carried out to define the relationship between the invasive and noninvasive variables.

Results: A strong and linear correlation was found between the invasive and non-invasive SBPao values, Pearson’s correlation coefficient was R = 0.76; p < 0.001. The diastolic counterpulsation pressure waves could be correctly identified on Arteriograph-registrations. Furthermore, the onset and the end of counterpulsation were also exactly defined noninvasively.

Conclusions: The noninvasive SBPao values showed strong correlation with invasive values. Our results confirm that the SBPao values, measured by Arteriograph24, are close to the true aortic SBP. This is the first investigation when Arteriograph24 is validated against invasive SBPao measurement by IABP.

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ARE HEMODYNAMIC MEASURES ASSOCIATED WITH FRAILTY IN ELDERLY PATIENTS UNDERGOING TRANSCATHETER AORTIC VALVE IMPLANTATION?
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Conclusions: Noninvasive SBPao values were also exactly defined noninvasively. Furthermore, the onset and the end of the diastolic counterpulsation pressure waves could be correctly identified on Arteriograph-registrations. Furthermore, the onset and the end of counterpulsation were also exactly defined noninvasively. Our results confirm that the SBPao values, measured by Arteriograph24, are close to the true aortic SBP. This is the first investigation when Arteriograph24 is validated against invasive SBPao measurement by IABP.

Results: A total of 212 patients were included for analysis. Mean age was 79.2 years (±7.8), 52.7% men, mean Aortic Valve Area (AVA) was 0.73 (±0.3), mean Pulse Wave Velocity was 12.6 (±1.5), Frailty was found in 57.8%. Periphereal pulse pressure (p = 0.04) and central pulse pressure (p = 0.02) but not aortic stiffness were associated with AS severity. AVA was associated with frailty (p = 0.02) whereas measures of aortic stiffness were not.

Conclusion: Aortic valve area but not measures of aortic stiffness is associated with frailty status in elderly patients with AS undergoing a TAVI procedure.