

혈액 투석 환자에서 인공 신장실 혈압과 자가 가정 혈압의 관계

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Mean of Pre- and Post-dialysis Systolic Blood Pressure is an Independent Predictor of Home Systolic Blood Pressure in Hemodialysis Patients

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We purposed to investigate which dialysis unit blood pressure (DUBP) is the best predictor for of home blood pressure (HBP) in hemodialysis (HD) patients. HD patients who were on treatment longer than 3 months were included in this study. Exclusion criteria were hospitalized patients who had acute illness, changes of dry weight, or those who had anti-hypertensive drugs within 2 weeks. HBP monitoring as a reference method was performed over 1 week using the same automatic oscillometric device (Omron Healthcare, Kyoto, Japan). Patients were asked to record their BP three times daily (waking up, between noon and 6pm, and at bedtime). We used the data of DUBP recordings such as pre-HD, intra-HD, post-HD, mean of pre- and post-HD, mean of pre- and intra- and post-HD BP. A total of 40 patients participated in this study. The 40 prevalent HD patients, aged 60.0 ± 8.5 years (60% men; 40% patients with diabetes). 1) Mean of pre- and post-HD systolic blood pressure (SBP) was the most unbiased and the most accurate with the smallest standard deviation difference (13.3 mmHg) compared to pre-HD, intra-HD, post-HD, mean of pre- and intra- and post-HD SBP in predicting home systolic blood pressure (HSBP). 2) HSBP of ≥ 150 mmHg was used to classify patients with home systolic hypertension. The area under ROC curve for mean of pre- and post-HD SBP was 0.75 (95% CI: 0.59 to 0.92). 3) Optimal Youden Index (a measure of overall diagnostic effectiveness) of 0.68 was obtained at the mean of pre-HD and post-HD SBP of 146.5 mmHg. At this cut-point, the sensitivity, specificity, positive predictive value, and negative predictive value for diagnosing home systolic hypertension were all 80%. 4) On stepwise linear regression analyses, only logarithmic function of mean of pre- and post-HD SBP independently predicted the 1-week HSBP. In conclusion, mean of pre- and post-HD SBP was an independent predictor of 1-week HSBP in HD patients.

Key Words: 혈액투석, 혈압, 가정

Hemodialysis, Blood pressure, Home