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## 二维应变成像评价原发性高血压患者左心室整体收缩功能

### Two-dimensional strain imaging in assessment of left ventricular global systolic function in patients with essential hypertension

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中文摘要:

目的 应用二维应变成像技术评价原发性高血压患者左心室整体收缩功能。方法 收集69例原发性高血压患者,其中左心室正常构型(LVN)亚组33例,左心室重构(LVR)亚组36例,另外选取同期30名健康志愿者作为对照组;应用二维应变成像技术测量长轴方向左心室整体收缩峰值应变(GLPSS)和圆周方向左心室整体收缩峰值应变(GCPSS),分析GLPSS、GCPSS与左心室质量指数(LVMI)之间的相关性。结果 与对照组相比,LVN亚组及LVR亚组GLPSS均减低( $P < 0.05$ ),且LVR亚组低于LVN亚组( $P < 0.05$ )。LVN亚组GCPSS与对照组的差异无统计学意义( $P > 0.05$ ),LVR亚组GCPSS较LVN亚组及对照组均减低( $P < 0.05$ )。原发性高血压患者GLPSS与LVMI呈正相关( $r = 0.68, P < 0.01$ )。结论 二维应变成像技术能够客观评价原发性高血压患者左心室整体收缩功能,具有重要临床应用价值。

英文摘要:

**Objective** To assess the left ventricular global systolic function in patients with essential hypertension using two-dimensional strain imaging. **Methods** Totally 69 patients with essential hypertension were collected, including 33 of normal geometry (LVN) subgroup and 36 of remodeling (LVR) subgroup. Meanwhile, another 30 healthy volunteers for the same period were selected as the control group. Global peak systolic strain of left ventricular were analyzed by two-dimensional strain imaging in the longitudinal and circumferential directions, and the correlation between global longitudinal peak systolic strain (GLPSS), global circumferential peak systolic strain (GCPSS) and left ventricular mass index (LVMI) were analyzed, respectively. **Results** GLPSS in LVN and LVR subgroups were lower than in control group (both  $P < 0.05$ ). And GLPSS in LVR subgroup was lower than in LVN subgroup ( $P < 0.05$ ). The difference of GCPSS between LVN subgroup and control group was not significant ( $P > 0.05$ ). GCPSS reduced in LVR subgroup ( $P < 0.05$ ). Positive correlation was found between GLPSS and LVMI in patients with essential hypertension ( $r = 0.68, P < 0.01$ ). **Conclusion** Two-dimensional strain imaging can assess left ventricular global systolic function correctly in patients with essential hypertension, and has great clinical application value.

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