**Antihypertensive Drug Concordance in Patients with Apparent Resistant Hypertension: a Tertiary Hypertension Referral Centre Experience**

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**Introduction:**

Individuals with resistant hypertension have a 50% greater risk of cardiovascular events compared to those with well-controlled hypertension.1 Non-adherence to antihypertensive medication is a major cause of uncontrolled hypertension, with rates reported as high as 84%.2 The aim of this study was to assess the prevalence of non-adherence in hypertensive individuals referred to a tertiary hypertension centre in South London.

**Methods:**

After the optimisation of drug regimens and the exclusion of white coat and secondary hypertension, drug adherence was assessed using liquid chromatography–mass spectrometry (LC-MS) analysis of urine samples in 124 individuals who met the criteria for resistant hypertension (uncontrolled hypertension despite concurrently taking at least 3 antihypertensive drugs of different classes including a diuretic or hypertension controlled on 4 drugs). Subjects were only included if they confirmed adherence to their prescribed antihypertensive medication in the preceding days.

**Results:**

Non-adherence was found in 71 individuals (57.3%). Of these, 45 (63.4%) had partial non-adherence and 26 (36.6%) had complete non-adherence. Non-adherent individuals were significantly younger, had a shorter history of hypertension, more likely to be female (OR=3.07; 95% CI: 1.45–6.47; p=0.003) and have depression (OR=11.66; 95% CI: 1.47–92.19; p=0.004), and less likely to have concomitant cardiovascular disease and/or target organ damage (OR=0.42; 95% CI: 0.19–0.92; p=0.028), type 2 diabetes mellitus (OR=0.40; 95% CI: 0.19–0.83; p=0.013), chronic kidney disease (OR=0.34; 95% CI: 0.12–0.92; p=0.028) and retinopathy (OR=0.14; 95% CI:0.04–0.51; p=0.001). Low adherence was observed more for diuretics.

**Conclusions:**

In individuals with apparent resistant hypertension, poor adherence to antihypertensive therapy is very common and was observed in 57% of individuals despite their insistence of treatment adherence in the preceding days. The assessment of adherence at an early stage in individuals with apparent resistant hypertension is essential for tailoring treatment strategies and saving vital healthcare resources.

**References:**

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