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**Transient increment of dialysis initiations after massive natural disaster
caused by hypertensive renal disease.**

Michiaki Abe

Department of Internal Medicine, Tohoku University Hospital, Japan

Objectives : The relationships between a massive disaster and the development of end-stage kidney disease (ESKD) have been unclear yet. We investigated the incidence and the causes of dialysis initiation in a city affected by the Great East Japan Earthquake (GEJE).

Methods : Single-center, retrospective observational study. All enrolled patients were maintenance dialysis patients in Kesenuma City Hospital, who initiated their dialysis between January 2007 and December 2022. The initiation dates were determined retrospectively. The causes of ESKD were conveniently divided into four groups: diabetic nephropathy (DN), hypertensive renal disease (HRD), glomerulonephritis (GN) and others.

Results : The increment of dialysis initiation after GEJE was recognized around after the five years and peaked down after the ten years. The initiation numbers of the four groups after GEJE compared with the before, and the initiation age among them were significantly different ($p=0.032$, $p=0.008$). The initiation by DN was high both before and after GEJE similarly. The initiation age by HRD was significantly increased than that by DN after GEJE ($p=0.014$). Logistic regression analysis suggested the initiation caused by HRD was significantly increased after GEJE ($p=0.006$).

Conclusions : The influences of GEJE on dialysis initiations were sustained around 10 years after GEJE, that was associated with HRD. Probably the massive disaster could progress ESKD gradually.