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Genotoxic damage in end-stage renal disease

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Highlights

- Elevated DNA and chromosomal damage in ESRD patients
- On Receiver Operator Characteristic curve analysis, DNA compared to chromosomal damage showed higher validity (Area under curve 1.00vs.0.960)
- Correlation of genetic damage with time-on-medication and dialysis

List of Abbreviations: AUC:area under curve;BMCyt:buccal micronucleus cytome assay; BMI: body-mass index;CASP:comet assay software programme; CKD:chronic kidney disease; CKD:EPI:chronic kidney disease epidemiology equation;DF:damage frequency;DI:damage index;DMSO:dimethyl sulfoxide;eGFR:estimated glomerular filtration rate; ESRD:end-stage renal disease; GFR:glomerular filtration rate; HD:hemodialysis; LMPA:low-melting-point agarose;NMPA:normal-melting-point agarose;OTM:Olive tail moment; PBL:peripheral blood leukocytes; PD:peritoneal dialysis;ROC:receiver operatingcharacteristic curve; RRT:renal replacement therapy; SCGE:single-cell gel-electrophoresis assay; SRL: Sisco Research Laboratories;TM:tail moment.

Keywords: buccal cytome; comet assay; micronucleus; dialysis