저　　자　　요　　청　　취　　소

Glycaemic and Haemoglobin A1c Thresholds for Detecting Diabetic Retinopathy

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Objective: We investigated the association between diabetic retinopathy (DR) and fasting plasma glucose (FPG) and A1C levels among Korean adults. **Method:** Using data from the Korea National Health and Nutrition Examination Survey (2011), a total of 5,212 adults ($\geq$ 19 years old) were analysed. When participants had diabetes mellitus and/or a suspicion of DR in two-field nonmydriatic fundus photography, 7 standard photographs were obtained after pupil dilatation. DR was defined as the presence of $\geq$ 1 retinal microaneurysms or blot haemorrhages with or without more severe lesions. **Result:** The overall appropriate glycaemic thresholds for diabetes-specific retinopathy were 6.3 mmol/l for FPG and 6.2% for A1C. The diagnostic accuracy was better for DR than for FPG (area under curve: 0.908 for FPG and 0.953 for A1C, p=0.007). After being controlled for other covariates, the odds ratio for the risk of DR increased significantly in the category of 6.2-6.6% for A1C and 6.3-7.0 mmol/l for FPG (Reference; <5.7% of A1C, <5.5 mmol/l of FPG). **Conclusion:** According to this nationally representative data, the current diagnostic value of FPG and A1C based on DR may be lowered for the Korean population.