中文題目：應用連續血糖監測儀來評估第 2 型糖尿病合併 G6PD 缺乏症患者的血糖控制情況
英文題目：The clinical utility of continuous glucose monitor system to evaluate glycemic indices in patients of type 2 diabetes with glucose-6-phosphate dehydrogenase deficiency: A pilot study
作　　者：謝昌勳, 李建興, 呂介華, 郭倬志, 蘇聖強, 劉智軒
服務單位：三軍總醫院內科部新陳代謝科

Background- Glycated albumin (GA) is a better marker for glycemic control than glycated hemoglobin A1C (HbA1C) in subject of type 2 diabetes (T2D) with glucose-6-phosphate dehydrogenase (G6PD) deficiency. The present study evaluated the relationship of GA and average blood glucose and indices of glucose variability using continuous glucose monitor system (CGMS) and developed an estimating equation for translating GA into estimated mean average glucose (eMAG) levels.

Materials and Methods- Subjects with combined T2DM and G6PD deficiency were recruited. All subjects were performed CGMS for 7 days to determine MAG. Plasma glycated albumin (GA), glycated hemoglobin A1C (HbA1C), and biochemistry profiles were measured and the correlation between these parameters were analyzed. Linear regression analysis was performed to produce an equation described correlation between GA/HbA1C and estimated MAG (eMAG).

Results- A total of 20 subjects with mean age of 62.5 ± 6.7 y/o, duration of 7.5 ± 3.4 years, and body mass index (BMI) of 24.9 ± 3.2. Approximately 2006 ± 86 CGMS readings were obtained from each participant and mean AG was 169.1 ± 48.2 mg/dL. The positive correlation was observed between serum MAG and GA levels ($r=0.767$, $p<0.001$), and HbA1C ($r=0.826$, $p<0.001$). MAG had not significant correlated with cardiovascular risk profiles except with LDL-C ($r=-0.725$, $p=0.002$). Linear regression analysis yielded the following equation: estimated MAG (eMAG) (mg/dL)$=6.85\times$GA%$+26.1$.

Conclusion- We concluded that GA is a suitable glycemic marker to evaluate the glycemic control among subjects of T2DM with G6PD deficiency. A simple equation between GA and eMAG developed for physician to explain the glycemic control condition to this specific T2DM population.