

PS-09

**CONTINUOUS GLUCOSE MONITORING ALLOWS AN EFFICIENT DISCLOSURE OF TIME SPENT IN HYPERGLYCEMIA IN NON DIABETIC PATIENTS ADMITTED FOR ACUTE CORONARY SYNDROME IN INTENSIVE CARE UNIT (ICU)**

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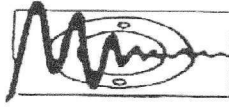
Tight normoglycaemia improves medical prognosis of acute coronary syndromes (ACS). Therefore, detection of hyperglycaemic deviations is crucial to initiate and adapt insulin therapy in patients who are naïve for diabetes with no high blood glucose when admitted.

We evaluated the ability to identify time spent over 140 mg/dl (TS>140) by using a continuous glucose monitoring device in a series of patients admitted in ICU for ACS. The secondary objective was to look for predictive factors of hyperglycemia.

A subcutaneous glucose sensor connected to a portable monitor (CGMS<sup>®</sup>, MiniMed-Medtronic) was used in 21 patients (17 M/ 4F), aged  $60 \pm 13$ , with a BMI of  $26 \pm 3$  kg/m<sup>2</sup>, admitted in ICU since less than 48 hours. Average time of recording was 40 hours per patient (2400 min). Sensor calibrations were performed against the 4 daily capillary blood glucose (CBG) measurements checked in clinical routine.

From a cumulated recording time of 50410 min, sensor data showed a TS>140 of 9565 min (17% of total time). Although a significant correlation appeared between the number of CBG values >140 mg/dl and TS>140 mg/dl ( $r = 0.93$ ;  $p < 0.001$ ), only 22/136 CBG values were >140 mg/dl in patients presenting some time >140 mg/dl ( $n=17$ ). No significant correlation between TS>140 mg/dl and age, sex, BMI or family history of CV disease or diabetes was disclosed. From a multivariate analysis, the model shows only a trend for BMI as a predictive factor for hyperglycaemia ( $p=0.056$ ;  $\beta$  coefficient=0.42).

Our results show a better ability for CGMS<sup>®</sup> to detect hyperglycaemic periods than routine CBG measurements in non diabetic patients, showing no high blood glucose when admitted for ACS. Because no clear predictive factor for hyperglycaemic deviations could be pointed out, continuous glucose monitoring looks valuable in such patients. Recently developed continuous glucose monitoring devices providing real time data might be useful tools to track and manage hyperglycaemia in ACS.



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**FINAL PROGRAM AND ABSTRACTS**