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16th Meeting of the Mediterranean Group for the Study of Diabetes

Casablanca (Morocco), April 10 – 12, 2019

Call for abstracts - Deadline for submission: December 20, 2018

Instructions for abstract submission (cf here below the template)

General information

The first author is responsible for the abstract content.
The text of the abstract should briefly state:

- ✓ **Objectives**: purpose of the study or epidemiological survey
- ✓ **Methods**: protocol, type of patients, response criteria, statistical analysis
- ✓ **Results**
- ✓ **Discussion**: significance of the results

Typing

Abstract for poster presentation should be prepared according to the following instructions:

- Abstracts must be submitted in **English or French.**
- **1 page maximum** (Word format, A4, 21x29.7 cm)
- The text should be in **Arial** (character size: **12**)
- **The title** of the Abstract should be in **bold** (character size 12) and written in **capital letters**
- List the names of all authors and their affiliations with the first author's name in bold (omit degrees and titles), in accordance with the following example:

  Kennedy SH[1], Young AH[2], Blier P[3].
  [1]University Health Network, Department of Psychiatry, University of Toronto, Toronto, ON,
  Canada;
  [2]Department of Psychiatry, University of Ottawa, Ottawa, ON, Canada;
  [3]Department of Psychiatry, University of British Columbia, Vancouver, BC, Canada.

- The abstract should have a maximum of 350 words
- **New line after each paragraph**
- Figures or graphics are not allowed
- The use of **underlining and italics is not permitted**. Words that need emphasis should be in bold type
- Use standard abbreviations. Place unusual abbreviations in parentheses after the first time the full word appears

Template

Name of first author	*Please specify*
Date of birth of first author	*Please specify*

HBA1C CORRELATES WEAKLY WITH FRUCTOSAMINE IN LATE PREGNANCY

Ali Abdulnabi Mohamed[1]; Mohammad Sadiq Hurmatali[1]; Jessica Spiteri Paris[1]; Gerald Buhagiar[2]; Charles Savona Ventura[1]

[1]Department of Obstetrics and Gynecology and [2]Department of Clinical Chemistry, Mater Dei Hospital, Malta

Objectives:
A good correlation has been demonstrated between glycated haemoglobin (HbA1c) and glycated protein (fructosamine) and the overall glycaemic control of diabetic patients. While HbA1c has been shown to be a useful correlate to glycaemic control in pregnant women, the role of fructosamine in managing pregnant diabetics is still not established. The influence of altered proportions of haemoglobin types as occurs in thalassaemia states on the glycaemic assessment role of HbA1c is also unknown. The aim of this study was to investigate the correlation between fructosamine and HbA1c in diabetic and non-diabetic pregnant women in the third trimester of pregnancy thus assessing whether glycated protein assessments can be used during pregnancy to assess glycaemic status; and to investigate the influence of altered proportions of haemoglobin types on the use of HbA1c as a glycaemic index.

Methods:
A prospective cohort of 71-pregnant women at 26-36 weeks' gestation were enrolled into the study between October 2013 and June 2014. Patient age, gestational age, parity, diabetes status and type of diabetes, family history of diabetes, weight and height were documented. HbA1c, fructosamine and haemoglobin electrophoresis were measured. The majority of women had normal haemoglobin electrophoresis. Only four patients were found to have thalassemia while a further two has thalassemia trait. Correlation and multiple regression statistics were used for analysis.

Results:
The 65 women with normal haemoglobin electrophoresis showed a weak but statistically significant correlation between fructosamine and HbA1c ($r=0.283$, $P=0.014$). However, no statistical correlation was demonstrable in those six women with abnormal haemoglobin electrophoresis ($r=0.265$, $P=0.49$). A multiple regression was run to predict fructosamine levels from age, BMI and HbA1c. All these variables statistically and significantly predicted fructosamine level - $F(3,61)=5.256$, $P=0.003$, $R^2=0.205$.

Discussion:
It would appear that, in the third trimester of pregnancy, fructosamine correlates significantly with HbA1c and thus can be used judiciously to assess long-term glycaemic control. Fructosamine on the other hand correlated poorly with HbA1c in women with thalassaemia or thalassaemia trait suggesting that the altered proportions of haemoglobin types may influence the glycaemic relationship of the HbA1c assay. In these circumstances fructosamine assay may be the better alternative.