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## 2<sup>nd</sup> International Conference on Hypertension & Healthcare

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### Apelin, nitric oxide and vascular affection in adolescent type 1 diabetic patients

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**Objective**: We are aiming to evaluate apelin and nitric oxide (NO) in type 1 diabetic patients and its relation to vascular affection.

**Patients and methods**: The study included 62 type 1 diabetic patients and 30 healthy volunteers of the same age and sex. Blood samples were taken for assessment of apelin, NO, glycosylated hemoglobin, and lipid profile. Urine samples were taken for assessment of albumin/creatinine ratio flow mediated dilatation (FMD) via ultrasound was done.

**Results**: The mean age of diabetic patients were  $16.3 \pm 1.5$  yrs (14.0 - 19.0 yrs), and mean duration of diabetes were  $9.4 \pm 2.9$  yrs (5.0 - 16.5 yrs). FMD and FMD/ nitrate mediated dilatation (NMD) ratio were significantly lower in diabetics. Nitric oxide was significantly lower , while apelin and albumin/ creatinine ratio were significantly higher than controls. No significant correlation was found between apelin, NO, FMD, albumin / creatinie ratio or BMI.

**Conclusion**: Diabetic patients had endothelial dysfunction and elevation of apelin, but they does not related to each other. BMI had no relation to apelin which indicate that obesity had no role to apelin. Further large study is recommended to detect the relationship of apelin with vascular affection by assesseing large numer of diabetics with and without complication.

#### **Biography**

Ahmed Abdelrahman Battah is a Professor of Critical Care Cardiology Cairo University. He is working as Interventional Cardiology & Echocardiography Consultant at Cairo University hospitals & Al Salam International Hospital. He is also the member of the European society of Cardiology, Member of the European Critical Care, Member of the Egyptian Society of Critical Care Medicine, Member of the Egyptian Society of Cardiology.

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