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## High incidences of Diabetes Type II in Saudi Male patients with B+ blood group and low incidences in O+ and Rh negative patients

Ibrahim Hamad Fahad Alwakid  
University of Hail, Saudi Arabia

Obesity is growing rapidly around the globe. If not controlled, it can cause many serious illnesses such as the heart disease, diabetes type II and many more. There are about 387 million people with diabetes out of which nearly 37 million live in MENA (Middle East and North Africa Region) region. Random community survey of 200 local educated youth (under 18) and the non-college going adult citizens revealed high prevalence of diabetes II among adult male population (27.5%) as compared to the educated youth population (5.5%). Since diabetes type II is prevalent among adult Saudi population (Alqurashi et. al., 2010, Farshori et al., 2012a and b) we decided to analyze if there is any correlation between the distribution of ABO (A, B, AB, and O) and Rhesus antigen (Rh) blood group in normal adult male (control) Saudi population as compared to the male diabetes II patients. Our results show that out of 207 control non diabetic subjects surveyed (males only) 2.89% were A-, 20.8% were A+, 3.38% were B-, 21.2% were B+, 0.96% were AB- (0.96%), 4.3% were AB+, 3.4% were O-, and 42.9% were O+ (42.9%). In summary in control population O+ was the most prevalent blood group (42.9%) and B+ was the second most prevalent blood type (21.2%). Next we compared the blood group distribution patterns in male diabetes type II patients. Analysis of our results show that 2.3% patients were A-, 22.65% were A+, 0% were AB-, 4.7% were AB+, 0% were B- but 30.5% were found to be B+ as compared to the 21.2% B+ among control group. Only 0.78% was O- and 39.1% were O+. When we looked at the distribution of Rh antigen in the control population we found 89.4% people to be Rh+ and 10.6% Rh- however among diabetics 96.9% patients were Rh+ and 3.13% were Rh-. These results suggest a 3.4 fold decrease in Rh- individuals among diabetics (3.13% Rh-) as compared to the control population (10.9% Rh-). In conclusion our results show that the blood group B+ is expressed in much higher percentage (30.5%) in male diabetes type II patients as compared to the controls (21.2%). Also O+ is expressed in 42.9% controls but show a slight yet significant reduction in its distribution (39%) among diabetes II patients. These results suggest that male patients with B+ blood show least resistance to diabetes II with high frequency of distribution (p value .094 at p < .10), and the O+ blood type individuals show some resistance (low frequency of distribution) in diabetes type II patients (t-value 3.43 and the p value .0754, at p < .10). Therefore frequency of distribution of B+ blood group is significantly higher in male diabetes II patients. Our results also show more than 3 fold decrease in Rh-individuals among diabetes patients. Significance of this decrease in Rh- individuals among diabetics is not clear at this time. Larger clinical studies need to be done to further investigate the reason why as compared to control population O+ blood group tend to show lower incidences and B+ high incidences of type II diabetes among Saudi male patients.

### Biography

Ibrahim Hamad Fahad Alwakid is in University of Hail, Saudi Arabia. He is the co-author of Dr M. Parvaiz. Farshori.

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