RESULTS

Among 2532 patients (mean HbA1c 8.2 ± 2.0%, mean body mass index 29.8 ± 6.4 kg/m^2, 54.4% females), females were younger and less likely to smoke than males. Of the entire cohort, 99.5% were at ESC high-/very high cardiovascular risk categories, wherein 70.3% of females and 78.6% of males were at very high-risk (p<0.001). Compared with males, more females attained BP <130/80 mm Hg (68.8% versus 62.2%; p<0.001), but not LDL-cholesterol <1.8 mmol/L (21.8% versus 31.5%; p<0.001) and all ABC targets (5.2% versus 7.3%; p=0.040). Fewer females were treated with SGLT2i (37.9% versus 44.2%; p=0.002), RASi (63.0% versus 69.6%; p<0.001) and statins (87.8% versus 92.6%; p<0.001) than males.

CONCLUSION

In this very high-risk T2D group, more males attained optimal risk factor control than females. Health services and mechanistic research are needed to explain the differences in risk profiles and treatment patterns.

PP-D-10

DEVELOPMENT AND EVALUATION OF AN ALTERNATIVE OBESE RAT ANIMAL MODEL OF TYPE 2 DIABETES

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OBJECTIVES

The aim of this study was to develop and evaluate of an alternative obese rat model for type 2 diabetes.

METHODOLOGY

Forty, 6-week-old, male Wistar rats were randomly divided into 5 groups as: Normal Control (NC), Diabetic Control (DC), Saccharin low 0.033% (SACL), Saccharin medium 0.067% (SACM) and Saccharin high 1.33% (SACH). The DC group was only given 10% fructose in water while the SACL, SACM and SACH groups were supplied with 0.03%, 0.067% and 0.13% saccharin respectively, in combination with 10% fructose in drinking water for 4 weeks only, while the animals in NC group were fed with normal drinking water. Thereafter, all animals were given normal drinking water for the remaining period of the study and fed with commercially available rat chow diet ad libitum for the duration of the study. The Body Mass Index (BMI) of the animals were measured weekly, with a BMI ≥0.69 g/cm2 considered obese. Once obesity was confirmed, all rats in DC and SAC groups were injected intraperitoneally with a low dose (40 mg/kg BW) of streptozotocin (STZ) dissolved in 0.1 M citrate buffer (pH 4.5), while the animals in NC group were injected with an equivalent volume of citrate buffer. One week after the STZ injection, animals with a non-fasting blood glucose level ≥200 mg/dl were considered diabetic.

RESULTS

After the 13-week experimental period, the SACL group demonstrated a sustainably higher BMI and obesity level, higher blood glucose level as well as better anti-diabetic drug sensitivity, more insulin resistance, lower glucose tolerance and partial pancreatic β-cell damage in comparison to the other diabetic groups.

CONCLUSION

Considering all above, the 10% fructose along with 0.033% saccharin fed and STZ (40 mg/kg BW) injected group could be a suitable animal model of obesity-related type 2 diabetes.

PP-D-11

EVALUATING HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH YOUNG-ONSET TYPE 2 DIABETES IN SINGAPORE USING EuroQol EQ-5D-5L

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OBJECTIVES

Despite multiple efforts to create awareness and reduce the rise of young-onset T2D (YT2D), the prevalence of YT2D remains high in Singapore. There is also limited information on how YT2D patients have been coping with their chronic condition. We hypothesize that YT2D patients face a myriad of challenges in their daily routine and aim to determine specific areas to focus on for providing patient-centred care.