RESULTS

This study included 40 patients in addition to 20 healthy subjects as control.

Patients were classified into 2 groups:

Group I: included 20 patients, with ischemic heart disease (IHD).

Group II: included 20 patients, with ischemic heart disease taking Beta Blockers (IHD-B).

Table 1: shows clinical parameters in different groups before exercise.

There was no significant age difference between control (53.7±8.9), IHD groups (55.2±3.9), and IHD-B (54.7±9.1) groups (P>0.05).

The male/female ratio was not significantly different between control (13/7), IHD (15/5) and IHD-B (12/8) groups (P>0.05).

Resting heart rate was not significantly different between control (73.0±9.7), IHD (70.6±10.0), and IHD-B groups (63.1±4.3) groups (P>0.05).

There was no significant difference in systolic blood pressure before exercise in control (122±10), IHD (122±10), and IHD-B (123±8) groups (P>0.05) and also no significant difference in diastolic blood pressure before exercise in control (76±8), IHD (73±2) and IHD-B (78±8) groups (P>0.05).

Table 2: Clinical parameters in different groups after exercise.

The peak exercise systolic blood pressure (162.7±13.3) was significantly higher in control groups than both IHD, IHD-B groups (P<0.05). But there was no significant difference in systolic (152.5±11.5) and diastolic (95.5±3.9) blood pressure of IHD and systolic (149.2±5.9) and diastolic (92.0±3.7) blood pressure of IHD-B groups (P>0.05).

Exercise duration was highly significant in control (12.1±0.79) versus both IHD (5.4±1.4) groups and IHD-B (7.4±1.08) groups. But exercise duration in IHD (5.4±1.4) was not different from IHD-B (7.4±1.08) groups (P>0.05).

Peak exercise heart rate was significantly higher in control (163.8±7.8) compared to both IHD (119.9±14.7) and IHD-B (115.6±12.1) groups (P<0.05) but IHD (119.9±14.7) and IHD-B groups (115.6±12.1) showed no significant difference (P>0.05).

Mean ST segment depression in patient with IHD was (2.7±0.7) while in IHD-B was (3.0±0.8). There was no significant difference between the two groups (P>0.05).

Table 3: shows QT parameters before exercise in three groups.

QT interval was highly significant in both IHD groups (388±21) and IHD-B (394.0±19) than control groups (365±21) groups (P<0.01), but QT interval in IHD and IHD-B was not significantly different (P>0.05).

Corrected QT was not significantly different between control (411±15) groups IHD groups (419.04±27) and IHD-B (403.7±18) groups (P>0.05).

There was highly significant elevation in QT dispersion in IHD groups (58±15) than control groups (40.5±12) (P<0.01) and also IHD (58±15) was significantly higher difference than IHD-B (36±17) groups (P<0.01). At the same time there was no significant difference between control groups (40.5±12.7) and IHD-B (36±17) groups (P>0.05).

Corrected QT dispersion was significantly in IHD groups (66.7±16) than control groups (43.9±12) (P<0.01) and also QT corrected dispersion was significantly higher in IHD groups (66.7±16) than IHD-B (35.0±18) groups (P<0.01).

Table 4: Shows QT parameters after exercise in three groups.

QT interval showed highly significant difference in both IHD (335.0±19) group and IHD-B groups (321.5±30) than control groups (263.5±13) (P<0.01). But there was no significant difference between IHD (335.0±19) and IHD-B (321.5±30) groups (P>0.05).

Corrected QT after exercise showed that was no significance difference in corrected QT interval between control, IHD and IHD-B (434.8±16), (472.3±34), (444.9±41) respectively (P>0.05).

QT dispersion was highly significant in IHD (45.5±23) groups than control (24.0±9) groups (P<0.01) and also QT dispersion in IHD-B (36.5±13) was significantly higher than control groups (24.0±9) (P<0.02)

but in IHD groups (45.5±23) no significant difference with IHD-B (36.5±13) groups (P<0.05).

Corrected dispersion QT was highly significant in IHD groups (69.4±36) than control groups (39.6±15) (P<0.03) and also IHD-B (53.7±18) was significantly higher than control groups (39.6±15) (P<0.02) at the same time in IHD and IHD-B there was no significant difference (P>0.05).

QT dispersion percent was highly significant in IHD groups (61.05±15) than both other groups control (39.8±13) groups and IHD-B (32.6±18) (P<0.01) but IHD-B groups was higher than control groups without significant difference (P>0.05).

Corrected dispersion QT percent in IHD (65.4±16) groups was highly significant than both other groups control (42.9±12) groups and IHD-B groups (33.1±19) (P<0.01), at the same time IHD-B groups was higher than control groups but not significant difference between them (P>0.05).

Table 5: Shows comparison of QT parameters in males and females in three groups before exercise:

There was no significant difference in R-R interval in three groups control males (0.84±0.14) and control females (0.82±0.06) groups (P>0.05).

IHD males (0.87±0.12) and IHD females (0.86±14) groups (P>0.05). IHD-B males (0.96±0.06) and IHD-B females (0.94±0.06) groups (P>0.05).

There was no significant difference in QT interval between males and females in three groups.

Control males (372±25) and control females (381±13) groups (P>0.05).

IHD males (388±22) and IHD females (388±24) groups (P>0.05).

IHD-B males (395±20) and females IHD-B (390±17) groups (P>0.05).

Corrected QT was not significant difference between males and females in three groups.

Control males (406±13) and control females (422±17) groups (P>0.05).

IHD males (418±29) and IHD females (430±27) groups (P>0.05).

IHD-B males (404±17) and IHD-B females (404±25) groups (P>0.05).

QT dispersion showed not significant difference between males and females in three groups control males (39±14) and control females (43±11) groups (P>0.05).

IHD males (61±18) and IHD females (64±9) groups (P>0.05).

IHD-B males (33±17) and IHD-B females (38±22) groups (P>0.05).

Corrected QT dispersion was not significant difference between males and females in three groups.

Control males (42±12) and control females (47±12) groups (P>0.05)

IHD males (65±19) and IHD females (69±11) groups (P>0.05)

IHD-B males (34±18) and IHD-B females (40±23) groups (P>0.05).

Table 6: Shows comparison of QT parameters in males and females in three groups after exercise.

There was no significant difference in R-R interval between males and females groups.

Control males (0.37±0.02) and females control (0.37±0.02) groups (P>0.05).

IHD males (0.51±0.05) and IHD females (0.50±0.07) groups (P>0.05) and IHD-B males (0.53±0.06) and IHD-B females (0.50±0.03) groups (P>0.05).

QT interval was not significantly different between males and females in three groups as follow.

Control males (267±10) and control females (257±18) groups (P>0.05). IHD males (340±17) and IHD females (328±21) groups (P>0.05).

IHD-B males (327±30) and IHD-B females (306±30) groups (P>0.05).

Corrected QT was not significantly different between males and females in three groups as follows.

Control males (440±13) and control females (425±18) groups (P>0.05).

IHD males (475±24) and IHD females (468±47) groups (P>0.05). IHD-B males (449±42) and IHD-B females (433±42) groups (P>0.05).

There was no significant difference in QT dispersion between males and females in three groups as follows.

Control males (26±10) and control females (20±8) groups (P>0.05).

IHD males (62±24) and IHD females (46±22) groups (P>0.05). IHD-B males (31±15) and IHD-B females (32±4) groups (P>0.05).

Corrected QT dispersion was not significantly different between males and females in three groups control males (43±16) and control females (33±13) groups (P>0.05) IHD males (87±36) and IHD females (67± 5) groups (P>0.05). IHD-B males (43±21) and IHD-B females (45±7) groups (P>0.05).

QT dispersion percent was not significantly different between males and females.

Control males (38±14) and control females (42±11) groups (P>0.05).

IHD males (60±19) and IHD females (63±9) groups (P>0.05).

IHD-B males (31±18) and IHD-B females (37±23) groups (P>0.05).

Corrected QT dispersion percent was not significantly different between males and females in three groups as follows.

Control males (41±13) and control females (47±12) groups (P>0.05).

IHD males (64±19) and IHD females (68±11) groups (P>0.05).

IHD-B males (32±19) and IHD-B females (38±24) groups (P>0.05).