(n=37)Cardiac morphometric data Cardiothoracic ratio 0.27 ± 0.03 a 0.29 ± 0.03 a 0.31 ± 0.04 b < 0.001 0.358 < 0.001 < 0.001 Left atrial/heart ratio (mm2) 13.31 ± 2.73 12.89 ± 2.38 13.35 ± 2.03 0.661 0.325 0.794 0.196 Right atrial/heart ratio 14.72 ± 1.5 a 17.78 ± 2.06 b 18.73 ± 1.79 b < 0.001 < 0.001 < 0.001 0.011 Left ventricular sphericity index 1.74 ± 0.25 1.84 ± 0.18 1.80 ± 0.22 0.142 0.028 0.267 0.298 Right ventricular sphericity index 1.57 ± 0.16 a 1.40 ± 0.11 b 1.43 ± 0.09 b < 0.001 < 0.001 < 0.001 0.470 Left ventricular free wall 3.04 ± 0.19 a 3.17 ± 0.28 a 3.50 ± 0.32 b < 0.001 0.016 < 0.001 0.002

Non-biopsied

ICSI

 3.44 ± 0.34 b

 3.18 ± 0.23 b

 0.59 ± 0.05 b

87.86 + 3.15

61.46 ± 6.97 b

 4.95 ± 0.51

 5.99 ± 0.33

 0.64 ± 0.08 b

 0.74 ± 0.08

 55.08 ± 4.4

sied ICSI and Biopsied ICSI, MAPSE: Mitral annular plane systolic excursion, TAPSE: Tricuspid annular plane systolic excursion

Numerical data are presented as mean ± SD, Statistical significance at P value<0.05, Different lower-case letters indicate significant difference in pairwise comparison. Comparisons were adjusted by parity and birthweight centile, Adjusted P1: Comparison between Non-biopsied ICSI and SC groups, Adjusted P2: Comparison between Biopsied ICSI and SC groups. Adjusted P3: Comparison between Non-biopsied ICSI and SC groups.

Biopsied ICSI Unadjusted

P value

< 0.001

0.005

< 0.001

0.16

0.032

0.774

0.725

0.022

0.345

0.792

(n=37)

 3.47 ± 0.34 b

 3.18 ± 0.29 b

 0.6 ± 0.04 b

87.16 + 3.3

 63.22 ± 6.04 ab

 4.86 ± 0.59

 5.92 ± 0.35

 0.66 ± 0.06 ab

 0.71 ± 0.05

 55.14 ± 2.97

Adjusted AdjustedAdjusted

P2

< 0.001

< 0.001

< 0.001

0.10

0.288

0.532

0.983

0.896

0.643

0.325

P3

0.977

0.833

0.587

0.873

0.127

0.331

0.966

0.147

0.164

0.491

P1

< 0.001

< 0.001

< 0.001

0.103

0.009

0.785

0.948

0.200

0.388

0.083

Table 3. Fetal cardiac assessment of the studied groups

thickness (mm)

thickness (mm)

MAPSE (mm)

TAPSE (mm)

time (ms)

Systolic function data Left ejection fraction (%)

Diastolic function data Mitral E/A ratio

Left isovolumic relaxation

Tricuspid E/A ratio

Septal wall thickness (mm)

Right ventricular free wall

Right ejection fraction (%)

Myocardial Performance Index

SC

(n=39)

 3.09 ± 0.21 a

 3.03 ± 0.18 a

 0.49 ± 0.04 a

 85.62 ± 7.67

65.6 ± 7.27 a

 4.85 ± 0.8

 5.95 ± 0.4

 0.68 ± 0.07 a

 0.73 ± 0.06

 54.44 ± 6.72