가하였으나 통계학적으로 유의한 차이는 없었다. 전체 대상 환자 14명 중 4명 (28%)이 수술 7~10개월 후에 자연임신 하였고, 4명 (28%)은 수술 후 10~30개월 후에 IVF를 시행하였다.

Conclusions: 감약정자증을 가진 불현성 정계정맥류 환자에서 정계정맥류제거술은 술 후 정자 수를 증가시킨다. 불현성 정계정맥류외에 특별한 원인이 없는 불임 환자에서 미세수술적 정계정맥류제거술은 시행할 가치가 있는 것으로 사료된다.

P-10 In Vitro Differentiated Functional Cardiomyocytes from Parthenogenetic Mouse Embryonic Stem Cells

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Background & Objectives: This study was to examine whether the in vitro differentiation from parthenogenetic mouse embryonic stem (P-mES04) cells into functional cardiomyocyte is possible similar to the in vitro fertilization mouse embryonic stem (mES03) cells by immunocytochemistry and cardiac gene expression analysis.

Method: To derive in vitro cardiomyocyte differentiation, P-mES04 and mES03 cells were prepared into embryoid bodies (EBs) by suspension culture for 4 days and EBs were treated with 0.75% dimethyl sulfoxide (DMSO) for further 4 days culture (4-/4+), and then plated onto gelatin coated culture dish. Spontaneously contracted cell masses were plated onto glass coverslip and immuno-stained with specific cardiac antibodies (anti-sarcomeric -actinin Ab, 1:100; anti-cardiac troponin I Ab, 1:2000). Also, to determine the expression of cardiac muscle-specific genes, in vitro differentiated beating area cells were analysed by RT-PCR.

Results: By immunocytochemistry, beating P-mES04 cells were positively stained with muscle specific anti-sarcomeric -actinin Ab and cardiac specific anti-cardiac troponin I Ab similar to contracted mES03 cells. Also, through the RT-PCR analysis, P-mES04 beating cells were expressed cardiac specific L-type calcium channel, 1C, cardiac myosin heavy chain, cardiac muscle heavy polypeptide 7, GATA binding protein 4 and atrial natriuretic factor but not expressed skeletal muscle specific L-type calcium channel, 1S, which was identical pattern to control male adult heart cells and mES03 derived beating cardiomyocytes.

Conclusions: This result demonstrated that the parthenogenetic mouse embryonic stem (P-mES) cells also can derive in vitro differentiated functional cardiomyocytes like as in vitro fertilization mouse embryonic stem (mES) cells.