A biological molecule, chondroitin sulfate (CS) is one type of the glycosaminoglycan (GAG) that has a wide variety of biological processes. The human amniotic fluid cells (hAFCs) have the potential to differentiate into multiple cell lineages. The objective of this study is to investigate the pattern expression of chondroitin sulfate epitope (WF6) in hAFCs associated with the series of the day culture from days 0 to day 30. The hAFCs were obtained from the amniotic fluid of the pregnant women at 18 weeks of gestation (n= 5). All protocols approved by the Medical Ethical Review Board of Faculty of Medicine of Chiang Mai University. They were cultured in RPMI 1640 medium containing 20% FCS, AmnioMAX-C100 16% and antibiotics. The expression of chondroitin sulfate epitope (WF6) were continuously detected by immunocytochemistry analysis. The level of the chondroitin sulfate WF6 epitope in hAFCs were correlated together with both parameters. The first cycle, it gradually increased from day 0 to day 12 and continually subsided from day 12 to day 18. The second cycle, it increased from day 18 to day 27 and decreased after day 27 to day 30. It might be conclude that the expression of chondroitin sulphate WF6 epitope in hAFCs gradually increased and released in a cycle pattern that might be correlated with biological activities such as proliferation or differentiation. It is the benefit basic data for further studies.

References

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Fig. 1: Immunofluorescent localization of WF6 epitope on the hAFCs at series days of the culture Day0(a), Day6(b), Day12(c), Day15(d), Day24(e) and Day27(f).