

The change of retinol-uptake ability on the rat hepatic stellate cell induced under diabetic stress

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Vitamin A and its metabolites are known to be essential for vision and to regulate diverse activities such as cell proliferation, differentiation, morphogenesis, and tumorigenesis.¹⁾ Hepatic stellate cell (HSC) of rat liver is the major storage site containing more than 80% of the vitamin A in the whole body.²⁾ To study the change on HSC's function under diabetic environment, we tested the ability of retinol uptake on the HSC cell line under the high glucose concentration and oxidative stress. We cultured the HSC in 5 mM and 30 mM glucose concentration corresponding the sugar concentration in the blood induced from the diabetes mellitus early and lately. The changes of the retinoids contents on the HSC were analysed with the high performance liquid chromatography.

In addition, we studied the effect of oxidative stress on the HSC which was originated from the high glucose concentration in the body flow.

References

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