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INCREASED EXPRESSION OF UROTHELIAL AQUAPORIN-1 IN CAVEOLIN-1 KNOCKOUT MICE URINARY BLADDER

Hypothesis / aims of study

We investigated the effect of the deletion of caveolin-1 (CAV1) using CAV1 knockout (KO) mice on the expression of aquaporin 1 (AQP1) to confirm the relationship between them in the urothelium of urinary bladder.

Study design, materials and methods

The expression and cellular localization of AQP1 and CAV1 were determined by Western blot and immunofluorescent study in the wild type and CAV1 KO mice urinary bladder.

Results

AQP1 and CAV1 were co-expressed in the capillaries, arterioles and venules of the suburothelial layer. The AQP1 protein expression were significantly increased in the CAV1 KO mice compared with wild type control ($p < 0.05$).

Interpretation of results

There was significant increase in the expression of AQP1 in the CAV1 KO mice urinary bladder.

Concluding message

This finding may imply that AQP1 and CAV1 might be closely related to the bladder signal activity and may have a functional role in bladder function.

References

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Disclosures

Funding: No **Clinical Trial:** No **Subjects:** ANIMAL **Species:** Mouse **Ethics Committee:** The ethic committee of Connam National University Medical School