Lnc RNA HULC as a novel diagnostic and therapeutic target in preeclampsia

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Abstract:

Background: Preeclampsia is a severe pregnancy-related disease mainly in developing countries. Non-coding RNAs are very important factors in regulating the expression of certain genes and are involved in pathogenesis of numerous diseases. Recently, non coding RNA biomarkers are used as diagnostic tools for different disorders such as PE.

Methods: lnc RNA HULC expression levels was measured in serum collected from 22 patients with PE and 23 healthy pregnancies, using real-time PCR.

Results: HULC expression was elevated reaching significant levels ($p < 0.001$ with 2.16 fold change) in patients compared with control group. HULC was markedly increased in both severe and mild preeclamptic subgroups when compared to healthy controls ($p<0.001$ with 1.97 fold change and $p<0.001$ with 2.16 fold change respectively). ROC curve was assessed, the AUC of lnc RNA HULC was 0.952 (95%, CI=0.904 -1.000, $P< 0.001$).

Conclusion: lnc RNA HULC may be involved in PE pathogenesis and may be used as potential non-invasive diagnostic biomarker for this disease.