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Letter to Editors GGT and LDH: as an indicator of endothelial vascular damage in Preeclampsia

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1. Dear Editor,

With great interest we have read the article " Can GGT and LDH be indicators of endothelial vascular damage in Preeclampsia?" by Vanishree B and colleagues.¹ In the study, Vanishree B et al. reported that Systolic and diastolic blood pressures, serum gamma glutamyl transferase (GGT) and lactate dehydrogenase (LDH) were significantly increased in preeclamptic women than in normotensive pregnant women.¹

In preeclampsia, cellular dysfunction leads to the LDH leakage to the extracellular space. GGT is a microsomal enzyme its levels increases in hepatic injury.² However in the present study the increased GGT levels shows that not only by hepatic injury but GGT levels are also increased in tissue damage in preeclampsia.

However, we found certain discrepancies which we want to bring to your notice. The selection of study subjects seems to be as biased. The authors have included 50 subjects in each group (50 Normal pregnant women and 50 women with preeclampsia). Both the groups were in

their third trimester and of same age. However, in a casecontrol study, it is very uncommon to have the same number of total subjects in each group. If subjects have been selected randomly, then the authors should have mentioned the selection criteria of these subjects. Moreover, the sample size is too small to derive any conclusion. Therefore, it is difficult to implicate that the Elevated levels of serum lactate dehydrogenase (LDH) and serum gamma glutamyl transferase (GGT) indicates the tissue damage related to endothelial vascular damage and is the main cause of preeclampsia.

Moreover, Vanishree B et al. mentioned in the result section of abstract regarding the mean of Systolic and diastolic blood pressures (150/101 mm/Hg), GGT (20U/L) and LDH (756U/L) were significantly increased in preeclamptic women than in normotensive pregnant women", whereas in table 3 showing "the mean of Systolic and diastolic blood pressures (159.03/100.32 mm/Hg), GGT (22.5 IU/L) and LDH (746.5 IU/L) were significantly increased in preeclamptic women than in normal pregnancies.¹

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In addition Vanishree B et al. mentioned in table 3 regarding the GGT levels in normotensive pregnant

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women and preeclamptic women were 8.09 ± 0.50 IU/L and 22.5 ± 2.5 IU/L respectively and LDH levels in normotensive pregnant women and preeclamptic women were 48.8 ± 1.96 IU/L and 746.5 ± 35.6 IU/L respectively, whereas in figure 2 the GGT levels in normotensive pregnant women and preeclamptic women were 8.1 ± 3.3 IU/L and 22.5 ± 14.1 IU/L respectively and in figure 1 the LDH levels in normotensive pregnant women and preeclamptic women were 48.8 ± 12.9 IU/L and 746.5 ± 194.9 IU/L respectively.¹ The authors should be clear regarding the above mentioned parameters in preeclampsia and healthy pregnant women, which one is correct.

In conclusion, the authors should be clear regarding the above-mentioned observations.

1.1. Acknowledgements

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2. Declaration of competing Interest

The authors declare no competing interests.

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