

Serum microRNA-181a Expression Level in Patients with Acute Liver Failure and Its Correlation with Prognosis [Letter]

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Dear editor

I have read a research article entitled “Serum microRNA-181a Expression Level in Patients with Acute Liver Failure and Its Correlation with Prognosis” by Lili Wang, Pingping Liu, and Yidi Han. I would like to congratulate the author on this successful article and make a contribution. This research provides valuable insight into the role of miR-181a in acute liver failure (ALF). This study provides a contribution on the potential of miR-181a that can be developed as a biomarker in the diagnosis and prognosis of ALF disease. In addition, the results of the study open up opportunities in the development of miR-181a-based ALF therapy.¹

Although this research has advantages, this research also has several limitations that need to be considered in future research. 1) This study used an observational study design, so the results cannot determine the cause and effect between miR-181a expression levels and clinical outcomes in ALF patients.² 2) This study did not consider confounding factors that could affect the relationship between miR-181a and ALF clinical outcomes. These confounding factors include medical history, medication history, and lifestyle. A medical history such as Diabetes or Hypertension owned by the study respondents could affect miR-181a expression.^{3,4} In type 1 DM, it has been identified that increased circulating miR-181a is associated with pancreatic beta cell dysfunction.⁴ A medical history such as the use of certain drugs can decrease or increase microRNA expression, so the results obtained from samples taken after treatment may not be comparable to the results from samples taken before treatment.⁵ Lifestyles such as alcohol consumption or smoking can affect microRNA expression.^{6,7} 3) This study did not consider the timing of sampling performed at the same phase of the disease, such as in the same acute phase or at the same time after symptom onset. This could affect miR-181a expression. Acute liver failure is a rapidly changing condition. Sampling at an inappropriate time may result in inaccurate measurements of miR-181a levels, which may reflect natural fluctuations in microRNA expression during the course of the disease.

Disclosure

The author report no conflicts of interest in this communication. The author alone is responsible for the content and writing of the paper.

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