



DERANGED LIVER FUNCTION TESTS IN PREGNANCY

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Introduction

- We conducted a case report on deranged liver function tests (LFTs) in pregnancy and explored the differential of fatty liver.
- The purpose of this study was to highlight the increasing need to consider fatty liver disease as a differential in deranged LFTs in pregnancy.
- Pregnancies with non-alcoholic fatty liver disease (NAFLD) nearly tripled from 10.5/100,000 pregnancies in 2007 to 28.9/100,000 in 2015 in a study conducted in the United States (1).
- Women with a history of gestational diabetes (GDM) have an increased risk of NAFLD.

Case report

- Our case report was focused on a 39 year old caucasian lady, parity 2 with 4 previous miscarriages. She presented to clinic for bloods at 28 weeks due to previously deranged LFTs in her first and second pregnancies (Figure1).
- She was found to have deranged transaminases and these gradually worsened as her pregnancy progressed.
- On review of her past obstetrics history she had deranged LFTs for two previous pregnancies with associated pre term births. Additionally, she had GDM in her current pregnancy.

Images

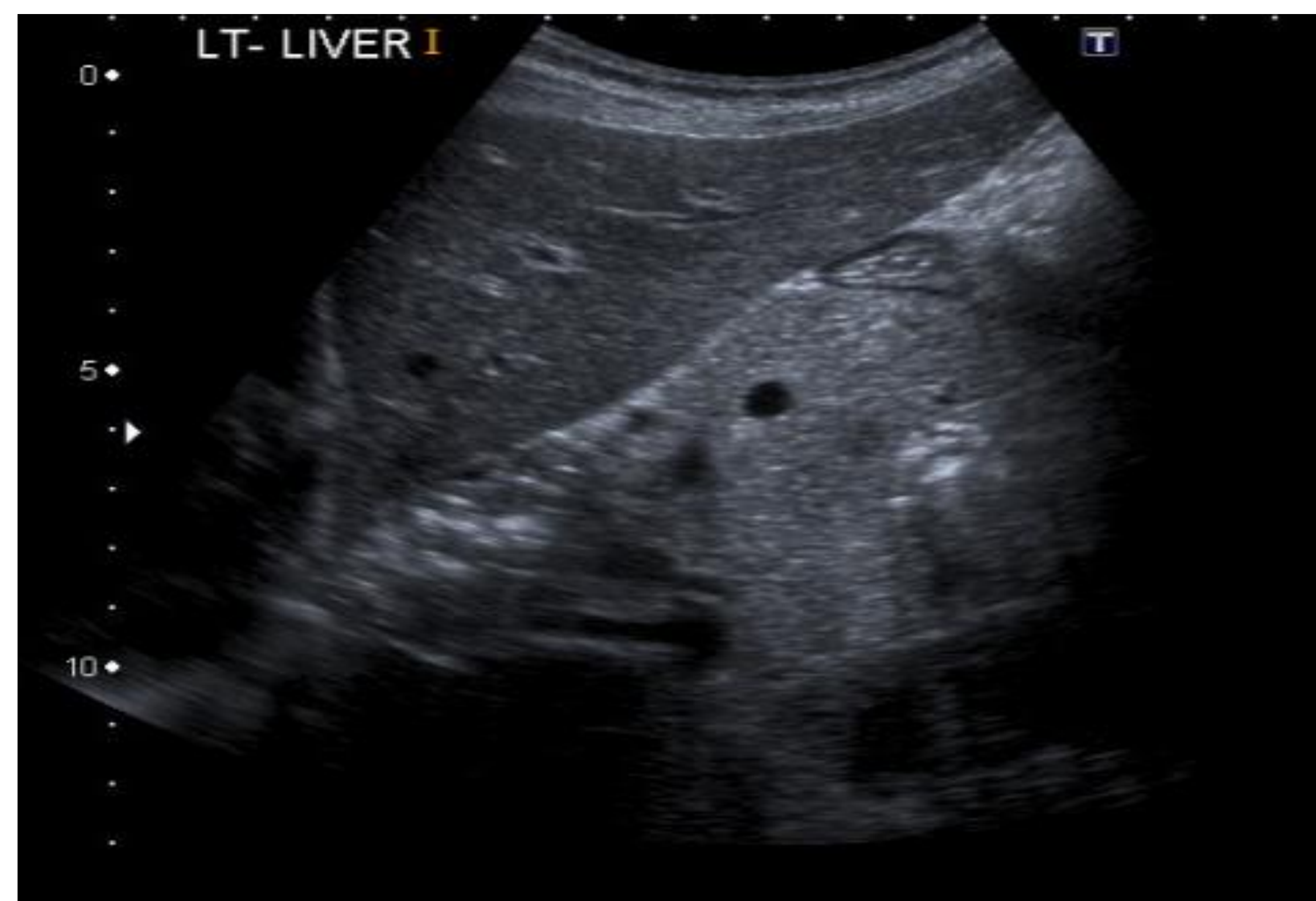


Figure 1. Normal US 2017 during first pregnancy

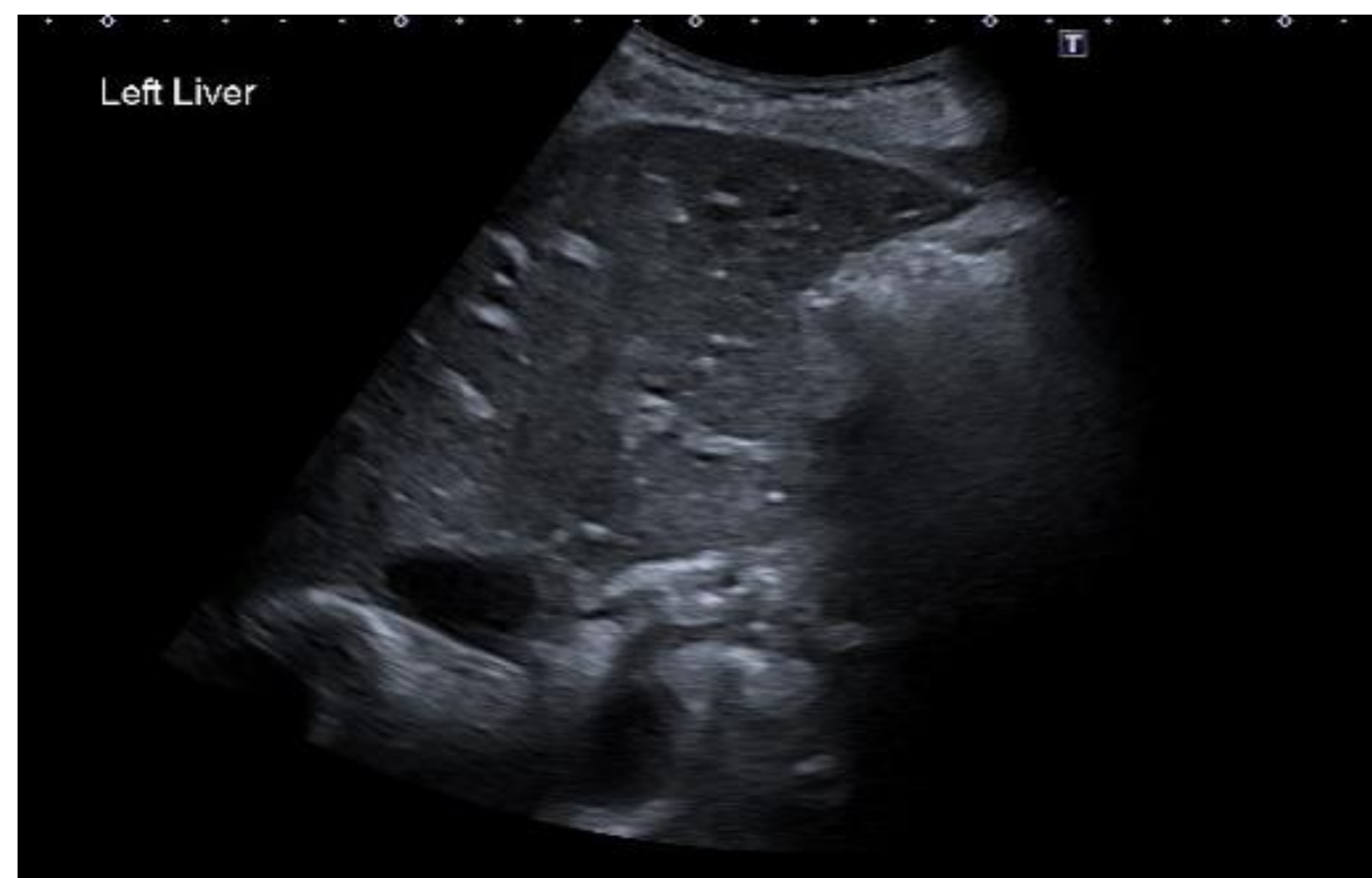


Figure 2. Starry sky appearance on liver US in 2021

Conclusion

- Her ultrasound (US) liver showed a ‘starry sky’ appearance. Her blood pressure, urinalysis and bloods remained normal for the duration of her pregnancy.
- Causes for deranged LFTs were excluded, including pregnancy causes (hyperemesis gravidarum, pre-eclampsia and intrahepatic cholestasis of pregnancy) (2) and viral/liver causes were also excluded.
- Our patient had a spontaneous rupture of membranes at 36 & 6; her third pre term delivery.

Discussion

NAFLD in pregnancy has nearly tripled in the last decade. Having NAFLD during pregnancy is associated with increased risk of gestational diabetes, pre-eclampsia and pre term births. High risk obstetric management among women with NAFLD in pregnancy may need to be considered in the future and NAFLD should be considered as a differential diagnosis in women with deranged LFTs in pregnancy.

Acknowledgements and references

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1. Sarkar M, Grab J, Dodge J, Gunderson E, Rubin J, Irani R et al. Non-alcoholic fatty liver disease in pregnancy is associated with adverse maternal and perinatal outcomes. *Journal of Hepatology*. 2020;73(3):516-522.
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3. Hagström H, Höijer J, Ludvigsson J, Bottai M, Ekblom A, Hultcrantz R et al. Adverse outcomes of pregnancy in women with non-alcoholic fatty liver disease. *Liver International*. 2015;36(2):268-274.