OXFORD

BJS, 2022, **109**, e12–e13
DOI: 10.1093/bjs/znab349
Advance Access Publication Date: 21 October 2021
Correspondence

Comment on: Static cold storage compared with normothermic machine perfusion of the liver and effect on ischaemic-type biliary lesions after transplantation: a propensity-score matched study

Angus Hann[1,2], Syed Soulat Raza[1], Dimitri Sneiders [1], Anisa Nutu[1], Hynek Mergental[1,2], Darius F. Mirza[1,2], Hermien Hartog[1] and M. Thamara Pr Perera[1,*]

[1]The Liver Unit, Queen Elizabeth Hospital Birmingham, Birmingham, UK
[2]University of Birmingham, Edgbaston, UK

*Correspondence to: The Liver Unit, Queen Elizabeth Hospital Birmingham, UK (e-mail: thamaraPerera@uhb.nhs.uk)

Dear Editor

We read the recent publication by Fodor *et al.*[1] with great interest. The notion of utilizing a propensity score, as these authors have done (*Figure S2* in the article), is that you control a select number of baseline characteristics to make the groups comparable to what would result if prospective randomization had occurred. The problem inherent with normothermic machine perfusion (NMP) research and its comparison to static cold storage (SCS) is that many grafts that undergo NMP and subsequent transplant would not be considered for transplant using SCS. This study exemplifies this by the significantly greater range of propensity scores in the NMP group box and whisker plot; at least half of the upper quartile in the NMP cohort does not seem to be an appropriate match in the SCS group. However, despite the matching of several graft/recipient combinations in the NMP group with 'better' combinations in the SCS group, all outcomes were comparable if not better.

Biliary drainage has long been known to be a weak spot in the liver transplant setting, akin to an 'Achilles heel' as described by Sir Roy Calne in 1976. As an institution that performs NMP frequently, another component of this good-quality paper that caught our attention was their Fig. 1c. In our experience of NMP preservation of donation after brainstem death grafts, the incidence of ischaemic type biliary lesions is indeed low, as suggested by Fodor *et al.*[1]. In those rare instances, and in our opinion, there is a predilection for the hilum (*Fig. 1a*). At present, we do not have an explanation for this observation. Our approach in these cases is to perform early surgical biliary reconstruction using the Hepp–Couinaud approach (*Fig. 1b–d*). We believe these grafts have the opportunity for further rescue in the event of this complication if it is confined to the hilum of the liver graft.

Funding

The normothermic machine perfusion consumables at the Queen Elizabeth Hospital Birmingham were funded by the Ann Fox Foundation under the umbrella of the Queen Elizabeth Hospital Charity.

Disclosure. The authors declare no conflict of interest.

Reference

1. Fodor M, Cardini B, Peter W, Weissenbacher A, Oberhuber R, Hautz T *et al.* Static cold storage compared with normothermic machine perfusion of the liver and effect on ischaemic-type biliary lesions after transplantation: a propensity score-matched study. *Br J Surg* 2021;**108**:1082–1089.

Received: September 03, 2021. **Accepted:** September 08, 2021

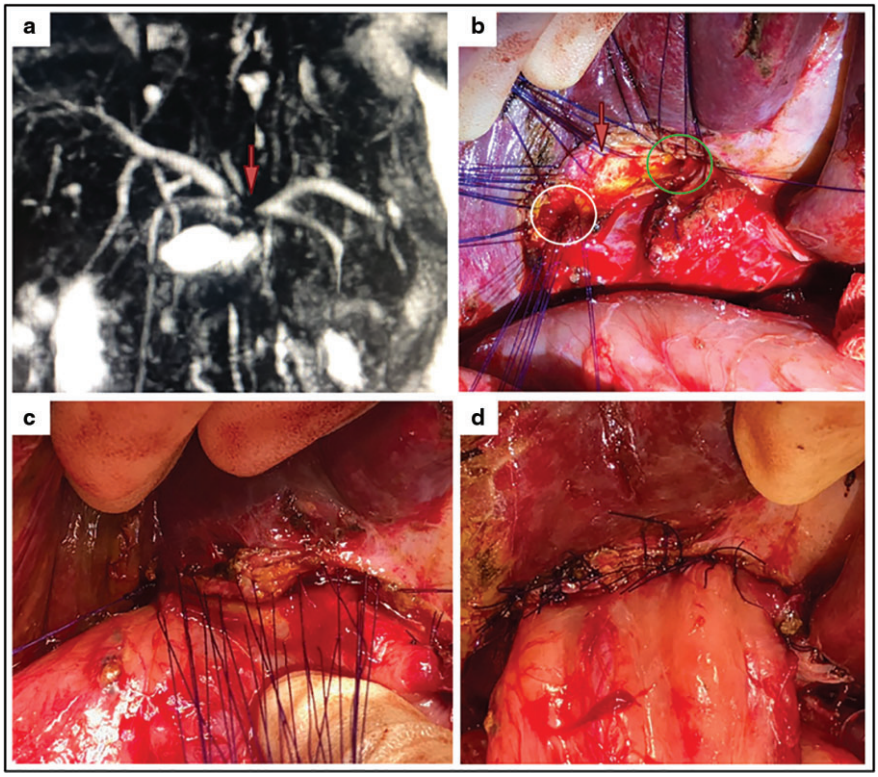

Fig. 1 a Magnetic resonance cholangiopancreatography image demonstrating complete loss of signal at the confluence of the left and right hepatic ducts (red arrow). b Dissection above the structured confluence to display both left (green circle) and right (white circle) hepatic ducts. The superior wall of the biliary confluence along the hilar plate remains intact (red arrow). c and d Mucosa-to-mucosa apposition fashioning an end-to-side hepaticojejunostomy.