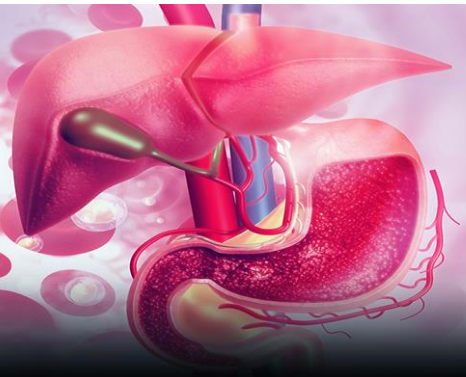


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Dear Doctor,

Greetings from Micro Labs limited.

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Looking forward to your valuable feedback

Best Regards,
Medical Team, Micro Labs Ltd

Notes on Impact of COVID-19 by European Liver Experts

The COVID-19 pandemic has left no part of healthcare unscathed and hepatology is no different. Emerging evidence suggest that the virus may cause mild liver anomalies, causing certain patients with liver disease to face worse outcomes of the infection, according to experts who spoke during a webinar organized by the United European Gastroenterology organisation.

Jörn Schattenberg, MD, hepatologist, gastroenterologist, and infectious disease specialist at the University Medical Center, Germany, said that the limited data available indicate that COVID-19 patients often experience high levels of aspartate and alanine aminotransferase (AST and ALT, respectively).

Dr. Schattenberg stated that even in patients with stable livers this does not automatically turn into serious liver disease, elevations coupled with rises in inflammatory factors indicate a prevalent trend of systemic dysfunction, which puts certain patients at risk for worse outcomes.

He thinks patients with chronic liver disease are of particular concern including compensated cirrhosis. The caveat, as with most COVID-19 stuff, is that you need more data.

Joint recommendations from the European Organization for the Treatment of Liver (EASL) and the European Society of Clinical Microbiology and Infectious Diseases (ESCMID) will help physicians classify certain liver disease patients at risk for worse COVID-19 outcomes.

Patients with pre-existing viral hepatitis do not tend to be at higher risk for serious COVID-19 according to the recommendations, while patients with non-alcoholic fatty liver disease and non-alcoholic steatohepatitis are at risk of poorer results, presumably due to certain comorbidities, but specifically related to underlying liver disease, as far as we can say at this stage.



For physicians who manage COVID-19 patients that already have chronic liver disorder, the EASL recommendations note that no elevated potential for adverse results seems to be present. Clinicians will therefore not should the duration of immunosuppressive treatment, despite the possibility of a relapse of the underlying autoimmune hepatitis.

Although evidence from patients with decompensated liver disease is not quite good, Dr. Schattenberg said EASL advises that such patients proceed with the normal treatment when taking consideration, for example, of limiting risk to medical workers by utilizing telemedicine.

In terms of those with end-stage liver disease, Dr. Schattenberg's own undisclosed results, including 21 such patients admitted with COVID-19, suggest prevalent activation of AST, and a degree of cytotoxicity from the viral infection, and instead a history of drug-induced toxicity, but no significant cases of liver harm I was particularly concerned regarding.

COVID-19 and Liver Transplantation

According to Marina Berenguer, MD, a hepatologist at La Fe University Hospital, in Valencia, Spain, sicker patients with liver disease may face the most danger during the pandemic. Valencia has reported at least 724 of the country's more than 14,600 COVID-19 fatalities to date.

Dr. Berenguer stated during the webinar that COVID-19 has contributed to declines in the amount of liver transplants in Spain. In fact, between Feb. 28 and March 5, 52 liver transplants were conducted opposed to 11 transplants conducted between March 20 and 26, after the Spanish authorities announced a state of emergency.

Dr. Berenguer said the decline was "inevitable," because management of the COVID-19 pandemic has been a concern, and the effect of these decreases on the waiting list of [transplant] mortality may become a collateral damage to this awful pandemic.

She said hospitals in Spain needed to determine whether to continue with transplants on a case-by-case basis, taking into consideration the services available — including rooms, personnel and blood supply — and assessing the dangers of introducing immunosuppressed patients to potential coronavirus infection against transplant benefits.

For clinics and physicians deciding how to use a donated organ, Dr. Berenguer said the Spanish National Transplant Association has advised that facilities not use organs from deceased donors with reported COVID-19 cases, and that patients with a small risk of contamination receive polymerase chain reaction tests to detect potential infections.



Intralesional Steroid in Esophageal Stricture post Esophageal Atresia Repair

INTRODUCTION

The most frequent source of esophageal stricture in the pediatric population is anastomotic strictures after oesophageal atresia (EA) repair. Mechanical endoscopic dilation is the essential therapy for such strictures. Several therapies are available as adjuncts to esophageal dilation, including intralesional steroid injection (ISI), topical application or intralesional injection of mitomycin C, placement of externally removable stents, and endoscopic electrocautery incisional therapy (EIT). This group previously recorded a progress rate of just 30 per cent for the stenting of pediatric anastomotic refractory Strictures. Although endoscopic incisional electrocautery therapy (EIT) shows potential as a historically less-used treatment of esophageal strenuousness, this procedure is likely to face a potentially elevated risk of perforation and involves more specialized endoscopic preparation. There are no large scale studies that support the efficacy of topical or injected mitomycin C which may also carry long term risks for young patients. The role of intralesional steroid injection (ISI) in the treatment of anastomotic stricture in esophageal atresia (EA) patients remains unclear. The aim of this study was to evaluate the efficacy and safety of ISI.

METHODS

158 EA patients with at least one ISI were reported between 2010 and 2017 for the treatment of esophageal anastomotic stricture. The increase in stricture diameter (ABD) was measured between dilation-only procedures (ISI-) and steroid-injection dilation (ISI+).

RESULTS

A total of 1055 balloon dilations were performed (452 ISI+). The median ΔD was significantly greater in the ISI+ group: 1 mm (IQR 0, 3) vs. 0 mm (IQR -1, 1.5) ($P < 0.0001$). The ISI+ group had greater percentage of improved diameter ($P < 0.0001$) and lesser percentages of unchanged and decreased diameters at subsequent endoscopy ($P = 0.0009$, $P = 0.003$). Multivariable logistic regression confirmed the significance of ISI on increasing the likelihood of improved stricture diameter with an adjusted odds ratio of 3.24 (95% CI: 2.15- 4.88) ($P < 0.001$). The ΔD for the first 3 ISI+ procedures were greater than the ΔD for subsequent ISI+ procedures: 1 mm (IQR 0, 3) vs. 0.5 mm (IQR -1.25, 2) ($P = 0.001$). There was no difference in perforation incidence between ISI+ and ISI- groups ($P = 0.82$).

DISCUSSION

This research reveals that in addition to stricture dilation, ISI therapy increases anastomotic diameter that is greater than stricture dilation alone. With increasing person ISI+ dilation procedure the diameter increase found was 1 mm greater than ISI- procedures of balloon dilation alone. As the original strike diameter of the ISI+ community was 6 mm, the diameter shift of 1 mm reflects an improvement of diameter of 17 percent in the ISI category. Recognizing the greater cumulative impact when patients experience multiple ISI procedures is significant, too.



The population consuming steroid injections provided a slightly better health result at the endoscopy follow-up on most of the categorical classes (better, unchanged, and decreased). Multivariable research has verified ISI's usefulness as an independent indicator of the anastomotic diameter change.

CONCLUSION

Intralesional steroid injection was well tolerated and raised the diameter of the anastomotic strenght greater than dilation alone. ISI's advantage over dilation alone was confined to the first 3 treatments, and ISI did not raise adverse effect risk. For validation of these results, prospective randomized large-scale trials are needed.

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Percutaneous versus Transjugular liver biopsy in children

INTRODUCTION

Liver biopsy (LB) is a beneficial tool for testing children with hepatic disorders. LB offers details about etiological diagnosis, process and development of the condition, and therapy reaction. Patients with stable liver function are also subject to liver biopsies for the determination of allograft health in post-liver transplant setting. Paul Elrich first described LB in 1883, and since then, many methods have been established to sample the parenchyma of the liver including percutaneous (blind or [ultrasound] guided), transjugular, laparoscopic and open surgery. Every of such approaches has its pros and cons. Two key methods of collecting liver tissue are percutaneous biopsy (PB) and transjugular liver biopsy (TJLB). While there is considerable information on TJLB in adults, there is minimal research in adolescents. Statistics on the comparative tissue yield and complications among TJLB and PB in children are scarce. The signs, progress rate, tissue yield and complications of TJLB were examined in children when contrasted with PB.

METHODS

Electronic records of children undergoing liver biopsy (LB) were reviewed. Clinicolaboratory data including indication, type of biopsy, complications and tissue yield (length, number of complete portal tracts [CPT]) were noted.

RESULTS

540 LB [indication: neonatal cholestasis (42.9%), chronic liver disease (43.7%), liver failure (3.7%), focal lesions (3.3%) and others (6.3%)] were done. 473 were PB (317 boys, 14[1-216] months) done by percussion [322 (68.0%)], real-time ultrasound guidance [125 (26.4%)] or plugged method [26 (5.5%)]. 67 (12.4%) were TJLB (38 boys, 140[24-216] months), done in patients with contraindications for PB. Technical success (67/68 vs. 473/473; $p=0.7$) and complications (4[6%]; vs. 15[3.3%]; $p=0.2$) of TJLB and PB were similar. Major complications (0.5%) included supraventricular tachycardia ($n=1$) in TJLB and hemoperitoneum ($n=2$) in PB. Tissue yield of TJLB was poorer in terms of length (1.0[0.2-2.0] vs. 1.1[0.4-2.1] cm; $p<0.001$), CPT (4[0-9] vs. 5[2-17]; $p<0.001$) and adequacy for reporting (56/67 vs. 459/473; $p<0.001$). Biopsy yield of <6 CPT was predicted by cirrhosis at histology and TJLB. No factor identified risk of complications with LB.

DISCUSSION

In 98.5 per cent of our cases, TJLB was statistically successful, close to the 96.8-100 per cent results of other pediatric and adult trials. The most frequent source of TJLB loss is unwillingness to catheterize the HV, as has also been observed in our case. PB had 100 per cent technological performance and in 97 per cent of our cases received sufficient tissue. This is close to the literature published for paediatric use. There was no variation in the consistency of the tissue in the three



types of PB (length, CPT number, fragmentation, reporting adequacy). In TJLB, the tissue yield was lower than in PB in terms of tissue duration, amount of CPTs, and adequacy for pathologist coverage. Within TJLB heterogeneity became more prevalent. Beckman et al recorded identical results in 102 TJLB, where the average CPT number was 4.3 ± 0.3 and the tissue was insufficient in 16 percent instances. Steps advised to enhance TJLB's performance involve the usage of ultrasound and fluoroscopic guides, cutting needles (18 G) rather than suction biopsy, several (> 3) passes to achieve sufficient tissue duration and test venogram when the operation is full.

CONCLUSION

PB and TJLB were similarly healthy, technologically effective and linked to low complications risk and zero mortality. Because of better tissue yield and lower quality, PLB (blind or USG directed as per situation), is the favored method for LB in babies. TJLB is a valuable choice intended for patients at elevated risk.

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