Surgical vs. Endoscopic Resection of Large, Nonmalignant Colorectal Polyps

To determine nationally representative estimates and to identify predictors of in-hospital mortality and morbidity after surgery for nonmalignant colorectal polyps, data was analyzed from a national inpatient sample for 2005 to 2014. All discharges for adult patients undergoing surgery for nonmalignant colorectal polyps were identified. Rates of in-hospital mortality and postoperative wounds, infections, urinary, pulmonary, gastrointestinal or cardiovascular adverse effects were calculated. Multivariable logistic regression using survey-weighted data was used to identify variables associated with postoperative mortality and morbidity.

An estimated 262,843 surgeries for nonmalignant colorectal polyps were analyzed. In-hospital mortality was 0.8% and morbidity was 25.3%. Postoperative mortality was associated with open surgical technique (vs. laparoscopic), older age, black race, Medicaid use and burden of comorbidities. Female sex and private insurance were associated with lower risk. Patients developing a postoperative adverse event had a 106% increase in mean hospital length of stay and 91% increase in mean hospitalization cost.

It was concluded that surgery for nonmalignant colorectal polyps is associated with almost 1% mortality and common morbidity. Risk vs. benefit discussion for clinicians and patients was indicated, and although confounding by patient selection, cannot be excluded, the risk associated with surgery support consideration of endoscopic resection as a potentially less invasive therapeutic option.

Ma, C., Teriaky, A., Sheh, S., et al. "Morbidity and Mortality After Surgery for Nonmalignant Colorectal Polyps: A 10-Year, Nationwide Analysis." American Journal of Gastroenterology, Vol. 114, Nov. 2019, pp. 1802-1809.

Risk for Hepatocellular Carcinoma with Cirrhosis After HCV Eradication

To analyze changes in HCC annual incidence over time, following HCV eradication, dynamic markers of HCC Risk were identified. A total of 48,135 patients who initiated HCV antiviral treatment from 2000 through 2015 and achieved an SVR in the Veterans Health Administration and 29,033 were treated with direct-acting antiviral agents (DAA), with 19,102 treated with Interferon-based regimens. Patients were followed after treatment until 2/14/2019 (average 5.4 years), during which 1509 incident HCCs were identified.

Among patients with cirrhosis before treatment with DAAs (9784), those with pre-SVR FIB-4 scores greater than 3.25 had a higher annual incidence of HCC (3.66 %/year), than those with FIB scores less than 3.25 (adjusted hazard ratio 2.14). In DAA-treated patients with cirrhosis and FIB scores greater than 3.25, annual HCC risk decreased from 3.8% per year in the first year after SVR to 2.4% per year by the 4th year. In Interferon-treated patients with FIB-4 scores greater than 3.25, annual HCC risk remained above 2% per year, even 10 years after SVR. A decrease in FIB scores from greater than 3.25 to less than 3.25 post SVR was associated with approximately 50% lower risk of HCC, but the absolute annual risk remained above 2% per year. Patients without cirrhosis before treatment (N = 38,351), had a low risk of HCC, except for those with pre-SVR FIB scores greater than 3.25 and post SVR FIB scores greater than 3.25. Risk remained high for many years after SVR.

It was concluded that patients with cirrhosis before an SVR to treatment for HCV infection continue to have high risk for HCC (greater than 2% per year) for many years, even if their FIB-4 score decreases, and surveillance should continue. Patients without cirrhosis, but with FIB scores greater than 3.25 have a high enough risk to merit HCC surveillance, especially if the FIB-4 remains greater than 3.25 post SVR.

Ioannou, G., Beste, L., Green, P., et al. "Increased Risk for Hepatocellular Carcinoma Persists up to 10 Years After HCV Eradication in Patients with Baseline Cirrhosis or High FIB-4 Scores." Gastroenterology 2019; Vol. 157, pp. 1264-1278.

Efficacy of Treatment for HCV Virus Infection Post Treatment Failure

After treatment failure on sofosbuvir plus an NS5A inhibitor, treatment options are limited. A randomized trial of the safety and efficacy of 12 and 16 weeks of glecaprevir and pibrentasvir (G/P), was evaluated, performing a randomized trial in patients with genotype 1 infection. A phase 3B, open-label study of those who received previous treatment with sofosbuvir plus an NS5A inhibitor was carried out. Patients without cirrhosis were randomly assigned to groups that received G/P for 12 weeks or 16 weeks (78 group A, 49 group B). Patients with compensated cirrhosis were randomly assigned to groups that received G/P and ribavirin for 12 weeks or G/P for 16 weeks. The primary endpoint was an SVR 12 weeks after treatment.

Samples collected at baseline and at time of treatment failure were sequenced for resistant-associated substitutions in NS3 and NS5A. In the 171 patients, 81% were men, 79% had HCV genotype 1A infection and 44% were black. Proportion of patients with SVR 12 weeks after treatment in group A, B, C and D were 90%, 94%, 86% and 97%, respectively. The treatment failed in 13 (7.3%) of patients with HCV genotype 1A infection, 6 (7.9%) in group A, 3 (6.1%) in group B, 3 (6.1%) in group C, and 1 in group B.

Most patients had baseline resistance-associated substitutions in NS5A treatment. Emerged resistance-associated substitutions in NS3 and NS5A were observed in 9 and 10 patients for treatment failure, respectively. G/P was well tolerated. Ribavirin increased adverse events, but did not increase efficacy.

It was concluded in a randomized study of patients with chronic HCV genotype 1 infection who received previous treatment with sofosbuvir plus an NS5A inhibitor, 16 weeks treatment with G/P produces same, but produced SVR 12 weeks after treatment with greater than 90% of patients, including those with compensated cirrhosis.

Lok, A., Sulkowski, M., Kort, J., et al. "Efficacy of Glecaprevir and Pibrentasvir in Patients with Genotype 1 Hepatitis C Virus Infection with Treatment Failure after NS5A Inhibitor Plus Sofosbuvir Therapy." Gastroenterology 2019; Vol. 157, pp. 1506-1517.

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