46 patients (35%) with 12 of 16 (75%) having infection-related renal dysfunction, 2 (12.5%) with hypovolemia, 2 (12.5%) with HRS. Most of the mortality occurred in alcoholic cirrhosis (14 patients).

Conclusion: The most common cause of renal dysfunction was infection which led to a high mortality in patients with cirrhosis.

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PREVALENCE OF HEPATITIS E VIRUS INFECTION AMONG PREGNANT WOMEN IN RAJASTHAN

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Background: Hepatitis E virus (HEV) is highly endemic in developing countries with high mortality rate among pregnant women. The prevalence of antibodies and RNA to HEV in Rajasthan is not known.

Aim: To evaluate the prevalence of hepatitis E infection among pregnant women at the SMS Medical College and Hospital Jaipur, Rajasthan, India.

Method: Pregnant females attending antenatal clinic attached to SMS Medical College between January 2010 and December 2010 who required blood sample for hemoglobin and blood group analysis were anonymously tested for the presence of anti-HEV IgG, anti-HEV IgM, and HEV RNA.

Result: Two-hundred and thirty-six pregnant women provided blood samples for unlinked anonymous testing for the presence of antibodies to HEV. The median age of participants was 28.89 ± 5.76 years. Among 236 women tested, HEV seroprevalence was 28.81%. Among the seropositive women, 64.40% tested positive for anti-HEV IgM while 35.60% tested positive to HEV IgG antibodies. HEV seroprevalence was highest (46.15%) among women 21–25 years of age, followed by 42.82% in <20-year group, then 36.84% in >26-year group. Of 236 women, 75.79% and 22.92% were in their third and second trimesters of pregnancy, respectively. Anti-HEV antibodies detected in women in their third trimester of pregnancy (30.25%) was significantly higher, $P < 0.05$ than in women in their second trimester of pregnancy (25.0%). Of 236, 29.20% were positive for HEV RNA.

Conclusion: The results of our studies revealed a high prevalence of HEV infection in pregnant women.

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RETROSPECTIVE STUDY OF ISOLATED HEPATIC INJURY

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Background: During the last decade, there has been a change in the therapeutic protocols related to liver trauma, and surgery is no longer the only option available.

Aim: The aim of this study was to analyze the effectiveness and the morbidity–mortality of both conservative vs surgical treatment in a series of 50 patients with isolated hepatic injury during the last year.

Method: In this retrospective study of 50 patients, variables analyzed included demographic data, injury classification, surgical treatment, transfusions, morbidity–mortality, and hospital stay. The liver trauma was classified according to the Hepatic Injury Scale of the American Association for the Surgery of Trauma. Grade I: 8 cases; grade II: 14 cases; grade III: 20 cases; grade IV: 6 cases; and grade V: 2 cases. Of 42 patients from grades 1 to 3, 37 patients were managed conservatively with the mean hospital stay of 9 days without any complications with the mean blood transfusion of 2 units. Rest of the 5 patients had to be operated due to failure of conservative trial. Five patients from grade 4 were treated conservatively with successful results. Three patients with grade 4 and 5 liver trauma were operated with 66% mortality rate. Surgical technique included limited resection-debridement, live vascular ligation, and perihepatic packing.

Result: If the right determinants with accurate diagnosis are clearly defined for isolated hepatic trauma, conservative management for grades I, II, and III is the best treatment option while grades IV and V need further evaluation.

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HEPATIC RESECTION—SCOPE FOR GENERAL SURGEON!

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Background: Hepatic resection has evolved over 50 years. In India, every general surgery department has a dream for successful liver resection, in spite of the scarcity of sophisticated instrument for liver resection such as Cavitron ultrasonic surgical aspirator (CUSA), argon beam coagulator, hydro-jet dissector, and harmonic scalpel. These devices are available only in few well-set gastrointestinal and hepatobiliary pancreatic surgical units.

Aim: Liver resection is possible by understanding of hepatic anatomy and precise technique.

Method: Twenty patients underwent hepatic resection from June 2010 to June 2011 by an open procedure with the use of Kelly's forceps and finger fracture technique. Of these, 4 patients had hydatid cyst, 2 patients had liver abscess with uncontrolled biliary fistula, 4 patients had carcinoma gallbladder, 4 patients had liver hemangioma, and 6 patients had liver trauma. All patients underwent triphasic CT to define lesion and its relation to major vasculature. We performed left hepatectomies, lobectomies, bisegmentectomy, and radical cholecystectomy. An average 2 unit blood transfusion was required in each case with blood loss 500–800 mL. Operative time was 6–8 h. Length of hospital stay was 5–8 days. One patient developed biliary leak and treated conservatively. No patient had postoperative signs of liver failure. No postoperative mortality was observed.

Result: Mastery of operative steps coupled with knowledge of liver anatomy and the common anatomic variants provides the foundation for a safe hepatic surgery in spite of lacking sophisticated instruments in Indian setup. But with the availability of such devices, it will be advantageous.

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HEPATOCELLULAR CARCINOMA—REVISITING TREATMENT OPTION!

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Background: Hepatocellular carcinoma (HCC) is the fifth most common cancer in the world, and the third most common cause of cancer-related death. Without specific treatment, the prognosis is very poor. The goal of management is cancer control, reduction in mortality, as well as improvement in the quality of life of patients with the use of treatment at cancer center with advanced treatment available.

Aim: To review the management of HCC in our general surgery department and its recent status.

Method: Thirty HCC patients diagnosed with increased α -fetoprotein and CT abdomen in our department from June 2008 to June 2010. Early-stage cancer was referred to higher center for liver resection/liver transplantation/nonsurgical ablative therapy. Late-stage patients are treated with systemic chemotherapy with Doxorubicin and 5-FU. Regular follow-up was done. Median survival in our institute was 1 year. Symptomatic patient survived for 6 months. Survival of referred patient was better than patient treated in our department. Recent data are also suggestive of liver resection for 1 or 2 nodules on Child Pugh A, liver transplantation for tumor of 3 cm or less in diameter, and nodules of 3 or less in number with Child Pugh A and B; data also mention that nonsurgical ablative therapies, radiofrequency ablation, percutaneous ethanol injection, and transarterial chemo-embolization gives better result than systemic chemotherapy.

Result: Early diagnosis of HCC remains a key goal in improving prognosis. In general, systemic chemotherapy has not been shown any survival benefit and cannot be recommended outside clinical trials. Early referral for partial hepatectomy and live transplantation may offer the best chance of cure in patients with resectable tumor. Development of adjuvant therapy with nonsurgical ablation and downstaging strategy also increases the chance of cure.

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COMPARISON OF CUSA AND KELLY'S CLAMP CRUSH TECHNIQUE AS LIVER PARENCHYMAL TECHNIQUES IN LIVER RESECTION

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Background: During liver resection, blood loss is one of the most important factors affecting the peri-operative outcome. Various techniques have been used to reduce blood loss during liver parenchymal transection. These include Kelly's clamp crush technique and ultrasonic dissection using the Cavitron ultrasonic surgical aspirator (CUSA). Kelly's clamp crushing method is the typical ways of blunt transection when the liver parenchyma is crushed between the Kelly's clamps so that vessels and bile ducts stand out for proper hemostasis by diathermy, metal clips, or suture ligatures. The CUSA allows meticulous division of the liver parenchyma leaving behind vessels and bile ducts for proper ligature and hemostasis.

Aim: To compare CUSA and Kelly's technique as liver parenchymal transection techniques in respect to parenchymal transection time, intra-operative blood loss, blood transfusion, postoperative morbidity, length of hospital stays in days, and mortality.

Method: The study was conducted in the Department of General Surgery, PGIMER, Chandigarh, India, over a period of 1 year from July 2010 to June 2011. Twenty patients were included in the study. Patients were prospectively randomized in 2 groups so as each group included a minimum of 10 patients. Group I: Patients in CUSA group and Group II: Patients in Kelly's group.

Result: Of the 20 patients, 11 patients (55%) had carcinoma gallbladder, 3 (15%) had hilar cholangiocarcinoma, 3 (15%) had carcinoma colon with liver metastasis, 1 (5%) had ileal carcinoid with liver and parietal metastasis, 1 (5%) had penetrating injury abdomen with liver laceration, and 1 (5%) had HCC. Surgeries included extended cholecystectomy 7, left hepatectomy 1, left lateral segmentectomy 1, left hepatectomy with resection of caudate lobe 1, left hepatectomy with right hemicolectomy 1, left hepatectomy and cholecystectomy with sigmoidectomy 1, right hepatectomy 1, right hepatectomy with caudate lobectomy 1,