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Budesonide – Oral Galenic Formulations for Crohn Disease

The aim of this work is to verify the pharmaceutical form in the galenic field of oral Budesonide compounded used in Crohn's disease: capsules delay release or oral suspension. In particular ways the kinds of excipients or bases-vehicle used in the galenic pharmacy practice. The therapeutic need for Crohn's disease requires a release of the API in delayed-release DR. The Budesonide molecule shows low systemic impacts due to its hepatic metabolism vs. a topical effect useful in this pathology. In this work, the oral pharmaceutical forms are analyzed: modified-release capsules and oral suspension with specific advantages for each one. Some formulations provided by various pharmacies are reported in this work as well as new technology like the 3D-PRINTING systems for colonic targeting tablets.

Research Article Published Date:- 2024-08-02

Reliability and Diagnostic Performance of Transient Hepatic Elastography in Chronic Hepatitis C during the Training Phase

Chronic infection with the hepatitis C virus (HCV) is estimated to affect 58 million people worldwide and around 700,000 individuals in Brazil. Various non-invasive markers of hepatic fibrosis have been proposed, such as transient hepatic elastography (THE) using FibroScan®. However, the reliability of the performance, by operators in the training phase is undetermined, which hinders its applicability in clinical practice.

Objectives: The present study aimed to evaluate the impact of training an inexperienced operator to perform the examinations using FibroScan® in patients with chronic hepatitis C. Specifically, the frequency of unreliable results throughout the training was assessed.

Methods: This is a cross-sectional study with retrospective data collection including compensated chronic hepatitis C patients who underwent the examinations using FibroScan® between March 2014 and December 2016, performed by two researchers. Included patients were divided into two groups based on the operator's experience in the examination: the Experienced Examiner (EE) group and the Examiner in Training (ET) group, with the latter divided into two phases: phase 1, consisting of the first 100 examinations, and phase 2, comprising subsequent examinations. For the reliability analysis, parameters such as success rate (SR), interquartile range (IQR) to median (Md) ratio (IQR/Md), and reliability criteria of Castéra, et al. and Boursier, et al. were used.

Results: Between March 2014 and December 2016, 771 adult HCV-infected individuals were evaluated and divided into EE group (n = 161), ET phase 1 (n = 100), and ET phase 2 (n = 158), showing similar demographic, clinical, and laboratory characteristics. SR and IQR/Md ratios were similar among EE, ET phase 1, and ET phase 2 groups. The proportion of reliable results was comparable in all three groups, using Castéra, et al. reliability criteria (92.5%, 92.0%, and 97.5%, respectively) and Boursier, et al. criteria (96.9%, 95.0%, and 98.1%, respectively). Conclusion: A short training period (up to 100 examinations) seems to be sufficient for them to have good clinical applicability in the hands of an operator with initial experience in the method

Case Study Published Date:- 2024-07-25

Mesenchymal Stem Cell Therapy for Hepatic Encephalopathy Due to Advance Liver Cirrhosis: Case Study

Mesenchymal stem cell (MSC) transplantation may be an alternative to liver transplantation for patients with end-stage liver disease. A 24-year-old patient with Hepatic Encephalopathy due to alcoholic liver cirrhosis underwent UCMSC transplantation because there were no donors available for liver transplants involving adult deceased and living individuals. The patient was given allogeneic Umbilical cord-derived MSCs, which were then cultured following accepted practices. Subsequently, the UCMSCs were infused through the intravenous route 3 times at the interval of 30 days. Serum bilirubin, globulin, and ammonia levels were improved after the infusion and the morphology of the liver and spleen had also improved.

Severe Alcoholic Hepatitis-optimizing Medical Management: Whether we need a Liver Transplant

Severe alcoholic hepatitis is an ethical and clinical conundrum, wherein a liver transplant is often recommended. The adequacy of medical treatment versus the risk of recidivism after transplant is often debated. Complete recovery in 26 of 27 patients with severe alcoholic hepatitis was observed, and hence the data was retrospectively analysed.

Methods: 27 patients, with severe alcoholic hepatitis, with Maddrey's discriminant function between 59.7 to 165.2 (mean 107.53), from June 2017 to May 2022, were followed up for between 11 months to 6 years. INR ranged from 1.99 to 3.7 (mean 2.709), and bilirubin was between 7.6 to 37.01, (mean 20.859). 8 patients had pre-existing liver cirrhosis. All patients received probiotics, nutritional support, physical rehabilitation, saturated fat (clarified butter/ desi ghee) supplementation, and anti-oxidant support.

At 90 days, total bilirubin improved to between 1.0 to 6.8 (mean 2.625). ALT (Alanine Transaminase/ SGPT) ranged from 65 to 550 (mean ALT – 197); and AST (Aspartate Transaminase / SGOT) ranged from 58 to 810 (mean AST – 271.51). Both the AST and ALT were near normal after 90 days. One patient died due to bacterial pneumonia and sepsis; the remaining 26 patients made a complete recovery. All patients including those with diagnosed liver cirrhosis, had complete resolution of their ascites, and near-normal liver function. At the last outpatient visit, none had ascites, edema, or encephalopathy, and had normal albumin levels and INR values.

Conclusion: Probiotics, nutrition, a saturated fat diet, and exercise; all have shown benefits in patients with severe alcoholic hepatitis when tested individually. Concomitant use of all the above has not been reported in the treatment of alcoholic hepatitis. The role of nutrition alone versus the contribution of nutritional deficiencies and the role of gut-derived endotoxemia need to be studied in detail. How to identify patients who need a transplant, if it is needed at all, remains a challenge.

Case Series Published Date:- 2024-01-18

Case Series of Metastatic Cutaneous Malignant Melanoma to the Gallbladder and the First Reported Case of Metachronous Adenocarcinoma of the Colon

Two female patients in their fifties with a previous history of cutaneous malignant melanoma were found during follow-up to have a 'hot' lesion in the gallbladder on a Positron Emission Tomography scan. Imaging showed a gallbladder polyp. Histology revealed infiltration of the polyp mucosa by metastatic malignant melanoma. One case had a BRAF mutation.

A male in his 70s was found on a staging computed tomography scan to have a suspicious intraluminal lesion in the gallbladder and thickening of the sigmoid colon. Subsequent histology confirmed metastatic malignant melanoma in the chest wall and to the gallbladder and adenocarcinoma in the colon. Molecular testing showed BRAF mutation. The metachronous adenocarcinoma in the colon was mismatch repair protein proficient and had no KRAS mutation. Histology from all cases showed that metastatic malignant melanoma to the gallbladder is superficial. Discussion: Reports from autopsy examinations revealed that metastasis from malignant melanoma to the gallbladder can be up to 15% - 20%. Most patients have mild symptoms or are asymptomatic which explains the paucity of cases reported in living patients within the published literature. Most of the previous reports showed the metastatic malignant melanoma to the gallbladder tends to be superficial. All our cases show no lymphatic or vascular invasion in the histological examination as previously published reports, however, the hematological spread is the most commonly suggested mechanism of spread.