# Evaluation and management of emergencies in the patient with cirrhosis

**Free article**

## Abstract

The approach to and management of critically ill patients is one of the most versatile themes in emergency medicine. Patients with cirrhosis of the liver have characteristics that are inherent to their disease that can condition modification in acute emergency treatment. Pathophysiologic changes that occur in cirrhosis merit the implementation of an analysis as to whether the overall management of a critically ill patient can generally be applied to patients with cirrhosis of the liver or if they should be treated in a special manner. Through a review of the medical literature, the available information was examined, and the evidence found on the special management required by those patients was narratively synthesized, selecting the most representative decompensations within chronic disease that require emergency treatment.

**Keywords:**Blood products; Choque hipovolémico; Cirrosis descompensada; Decompensated cirrhosis; Encefalopatía hepática; Fluid therapy; Fluido terapia; Hemoderivados; Hepatic encephalopathy; Hypovolemic shock; Sepsis.

# Position statement on the use of albumin in liver cirrhosis

**Free article**

## Abstract

Cirrhosis is characterized by a prolonged asymptomatic period in which the inflammation persists, increasing as the disease progresses. Proinflammatory cytokines and pro-oxidant molecules are key in the development of organ dysfunction. Cirrhosis progression and worsening of portal hypertension bring about bacterial translocation and systemic dissemination via portal circulation of bacterial products, and molecular patterns associated with damage, which exacerbate the systemic Inflammation. Albumin is a molecule that undergoes structural and functional changes as liver damage progresses, affecting its antioxidant, immunomodulatory, oncotic, and endothelial stabilizing properties. Our knowledge of the properties of albumin reveals a molecule with multiple treatment options, capable of targeting several physiopathological aspects of cirrhosis. For the elaboration of the present manuscript on the uses of albumin in liver cirrhosis, several experts in the field of hepatology in Mexico were divided into 5 working groups to summarise and formulate, when appropriate, position statements: 1)pathophysiology of cirrhosis and properties of albumin; 2)proven uses of albumin [large-volume paracentesis, spontaneous bacterial peritonitis (SBP), hepatorenal syndrome (HRS)]; 3)controversial/emerging uses of albumin (long-term use, acute decompensation, liver transplant, non-HRS kidney injury, muscle cramps, non-SBP infections, hyponatremia, encephalopathy); 4)use of albumin in acute-on-chronic liver failure, immunomodulation, and systemic Inflammation; 5)pharmacoeconomics.

**Keywords:**Acute-on-chronic liver failure; Albumin; Hepatorenal syndrome; Hyponatremia; Liver cirrhosis; Paracentesis; Spontaneous bacterial peritonitis.

# Interposition Arthroplasty in Untreated Chronic Dislocation of the Elbow

**Free PMC article**

## Abstract

**Objective:**To describe the clinical outcomes of interposition arthroplasty with transposition of the medial epicondyle to the coronoid process and articulated external fixation in patients with untreated chronic dislocation of the elbow.

**Methods:**Fourteen consecutive patients diagnosed with untreated chronic elbow dislocation performed a complete radiological and physical examination. The same surgeon treated all patients with a same technique. Passive mobilization started immediately in addition to the vigorous care of the surgical wound and surrounding skin.

**Results:**A total of 14 patients were treated, with a mean age of 31 years, with the nondominant side being the most affected (65%). In the immediate postoperative period, the initial Mayo Elbow Performance Score was 60 pts. In all cases, the distraction from the articulated fixator was removed, and there was an average of 16 pts improvement at the time of removal. A hinged elbow orthosis was placed for 4 weeks starting strengthening and obtained radiographic integration of the neocoronoids; ranges of motion of flexion 122°, extension -6°, and pronosupination 70°, without data of any direction instability.

**Conclusion:**Considering that this is one of the longest series with a follow-up of more than 60 months of evolution in our patients, the result is completely satisfactory, achieving the objective of a minimum range of motion of 100° in addition to elbow stability.

# The Multifaceted Manifestations of Multisystem Inflammatory Syndrome during the SARS-CoV-2 Pandemic

**Free PMC article**

## Abstract

The novel coronavirus SARS-CoV-2, which has similarities to the 2002-2003 severe acute respiratory syndrome coronavirus known as SARS-CoV-1, causes the infectious disease designated COVID-19 by the World Health Organization (Coronavirus Disease 2019). Although the first reports indicated that activity of the virus is centered in the lungs, it was soon acknowledged that SARS-CoV-2 causes a multisystem disease. Indeed, this new pathogen causes a variety of syndromes, including asymptomatic disease; mild disease; moderate disease; a severe form that requires hospitalization, intensive care, and mechanical ventilation; multisystem inflammatory disease; and a condition called long COVID or postacute sequelae of SARS-CoV-2 infection. Some of these syndromes resemble previously described disorders, including those with no confirmed etiology, such as Kawasaki disease. After recognition of a distinct multisystem inflammatory syndrome in children, followed by a similar syndrome in adults, various multisystem syndromes occurring during the pandemic associated or related to SARS-CoV-2 began to be identified. A typical pattern of cytokine and chemokine dysregulation occurs in these complex syndromes; however, the disorders have distinct immunological determinants that may help to differentiate them. This review discusses the origins of the different trajectories of the inflammatory syndromes related to SARS-CoV-2 infection.

**Keywords:**COVID-19; MIS-A; MIS-C; PASC; SARS-CoV-2; chemokine abnormalities; coronavirus; cytokine; multisystem inflammatory syndrome.

# Spastic Paraplegia Type 7 and Movement Disorders: Beyond the Spastic Paraplegia

## Abstract

**Background:**Spastic paraplegia type 7 (SPG7) mutations can present either as a pure form or a complex phenotype with movement disorders.

**Objective:**Describe the main features of subjects with SPG7 mutations associated with movement disorders.

**Methods:**We analyzed the clinical and paraclinical information of subjects with SPG7 mutations associated with movement disorders.

**Results:**Sixteen affected subjects from 11 families were identified. Male sex predominated (10 of 16) and the mean age at onset was 41.25 ± 16.1 years. A cerebellar syndrome was the most frequent clinical movement disorder phenotype (7 of 16); however, parkinsonism (2 of 16), dystonia (1 of 16), and mixed phenotypes between them were also seen. The "ears of the lynx" sign was found in four subjects. A total of nine SPG7 variants were found, of which the most frequent was the c.1529C > T (p.Ala510Val).

**Conclusion:**This case series expands the motor phenotype associated with SPG7 mutations. Clinicians must consider this entity in single or familial cases with combined movement disorders.

**Keywords:**ataxia; dystonia; movement disorders; parkinsonism; spastic paraplegia type 7; tremor.

# In vitro Azole antifungals susceptibility of Candida spp. isolates from HIV-infected patients with periodontitis

## Abstract

**Objective:**The objective of the present study was to determine the in vitro Azole antifungals susceptibility of Candida spp. strains isolated from HIV-positive patients with periodontitis.

**Methods:**Oral examination was performed in 500 HIV-positive patients, of which 228 were included in the study for having periodontitis which and separated in two groups based on their TCD4+ T-cells: (A) n = 110 (≤200 CD4+); (B) n = 118 (>200 CD4+). Candida spp. were isolated from the subgingival biofilm and crevicular fluid by seeding on CHROMagar plates and confirmed by endpoint PCR and MALDI-TOF. The susceptibility test in vitro for five antifungals was performed using the disc diffusion method.

**Results:**From the 228 HIV-positive patients with periodontitis, 174 were positive to Candida spp., and 204 isolations were obtained. 138 (67.64%) were C. albicans, and 66 (32.35%) were Candida non-albicans species. The most frequent Candida non-albicans species in order of frequency were C. glabrata with 48 (23.52%), C. tropicalis with 10 (4.9%), C. krusei with 7 (3.43%), and C. dubliniensis with 1 (0.49%). All species presented resistance to any antifungal: 149 to 5-fluorocytosine (73.0%), 149 to fluconazole (73.0%), and 144 to voriconazole (70.7%). Miconazole and econazole presented the highest susceptibility rates with 129 (63.2%) and 130 (63.7%) isolations, respectively.

**Conclusion:**The Candida spp. involved in periodontitis of HIV-positive patients have a multi-resistant feature. It is necessary to implement recurrent research regarding the antifungal resistance of the Candida spp. that take part in periodontitis pathogenesis to promote an effective treatment in HIV patients.

**Keywords:**Candida spp.; HIV-infection and multi-resistant; antifungal susceptibility; periodontitis.

# Bone mineral density and body composition in normal weight, overweight and obese children

## Abstract

**Background:**There is a possibility that excess body fat affects bone mass gain and may compromise skeletal health in obese children. The purpose of the study was to identify the relationship between bone mineral density (BMD) and body composition in normal weight, overweight and obese children.

**Methods:**This was a cross-sectional study of 6- to 11-year-old children who attended the hospital's outpatient clinic. They were apparently healthy and had no history of prematurity, low birth weight, or chronic diseases. Body mass index (BMI) was used to identify subjects as normal weight, overweight or obese. BMD and body composition were assessed by dual energy X-ray absorptiometry. The BMD values (total and lumbar spine) were compared between normal weight, overweight and obese children. Correlation coefficients were calculated, and multivariate models were performed.

**Results:**Forty-nine children were included: 16 with normal weight, 15 that were overweight and 18 with obesity; the mean age was 8.4 ± 1.7 years. All the participants had a normal BMD (> - 2 SD). BMD was higher in obese children and had a positive correlation with total and trunk lean mass in the three study groups (p < 0.001). In obese children, an inverse correlation of lumbar spine BMD (Z score) with total and trunk fat mass (p < 0.05) was identified. In the multivariate models (with the whole group), the total lean mass was the only significant variable that explained BMD variability.

**Conclusions:**BMD in obese children was higher than that in normal weight children, which is explained by their greater lean mass and not by excess body fat. In obese children, a higher fat mass was related to a lower lumbar spine BMD. Lean mass had a direct correlation with BMD in the three study groups and was the most important predictor of BMD, reflecting the importance of strengthening the muscular system through performing physical activity and practicing a healthy lifestyle.

**Keywords:**Body composition; Bone mineral density; Children; Obesity; Overweight.

# Gut microbiota from Mexican patients with metabolic syndrome and HIV infection: An inflammatory profile

## Abstract

**Aim:**A remarkable increase in metabolic syndrome (MetS) has occurred in HIV-infected subjects. Gut dysbiosis is involved in the pathogenesis of metabolic disorders. Therefore, the aim is to explore the profile of the gut microbiota in Mexican population with HIV infection and MetS.

**Methods and results:**In all, 30 HIV-infected patients with MetS were compared to a group of 30 patients without MetS, treated with integrase inhibitors and undetectable viral load were included in the study. Stool samples were analysed by 16S rRNA next-generation sequencing. High-sensitivity C-reactive protein >3 mg L-1 and higher scores in cardiometabolic indices were associated with MetS. The group with MetS was characterized by a decrease in α-diversity, higher abundance of Enterobacteriaceae and Prevotella, as well as a dramatic decrease in bacteria producing short-chain fatty acids. Prevotella negatively correlated with Akkermansia, Lactobacillus and Anaerostipes. Interestingly, the group without MetS presented higher abundance of Faecalibacterium, Ruminococcus, Anaerofilum, Oscillospira and Anaerostipes. Functional pathways related to energy metabolism and inflammation were increased in the group with MetS.

**Conclusions:**HIV-infected patients with MetS present a strong inflammatory microbiota profile; therefore, future strategies to balance intestinal dysbiosis should be implemented.

**Keywords:**disease processes; infection; intestinal microbiology; metabolic processes; viruses.

**High-Flow Nasal Cannula Failure Odds Is Largely Independent of Duration of Use in COVID-19**

No abstract available

# Correction to: A guide to classify tattoo motives in Mexico as a tool to identify unknown bodies

No abstract available