

References

- **Abraczinskas DR, Ookubo R, Grace ND, et al.** Propranolol for the prevention of first esophageal variceal hemorrhage: A lifetime commitment? *Hepatology* 2001; 34: 1096-102.[Medline].
- **Abraldes JG, Angermayr B, Bosch J.** The management of portal hypertension [review]. *Clin Liver Dis* 2005; 9:685-713, vii.[CrossRef][Medline].
- **Abraldes JG, Tarantino I, Turnes J, et al.** Hemodynamic response to pharmacological treatment of portal hypertension and long-term prognosis of cirrhosis. *Hepatology* 2003; 37:902-908.[CrossRef][Medline].
- **Abraczinskas DR, Ookubo R, Grace ND, et al.** Propranolol for the prevention of first esophageal variceal hemorrhage: A lifetime commitment? *Hepatology* 2001; 34: 1096-102.[Medline].
- **Akahoshi T, Hashizume M, Shimabukuro R.** Long-term results of endoscopic histoacryl injection sclerotherapy for gastric variceal bleeding. A 10-year experience. *Surgery* 2002; 131: S176-181.
- **Albornoz L, Motta A, and Alvarez D, et al.:** Nitric oxide synthase activity in the splanchnic vasculature of patients with cirrhosis: relation with hemodynamic disturbances. *J Hepatol* 2001, 35:456.
- **Arai H, Abe T, Shimoda R.** Emergency B-RTO for gastric varices. *J Gastroenterology* 2005; 40: 964-971.
- **Arakawa M, Masuzaki T, Okuda K.** Pathomorphology of esophageal and gastric varices. *Semin Liver Dis* 2002; 22: 73–82.
- **Arroyo V, Guevara M, Gines P:** Hepatorenal syndrome in cirrhosis: pathogenesis and treatment. *Gastroenterology* 2002, 122:1658-1676.

- ** Comprehensive review of pathophysiology and current treatment of HRS.
- **Azoulay D, Castaing D, Majno P, et al.** Salvage transjugular intrahepatic portosystemic shunt for uncontrolled variceal bleeding in patients with decompensated cirrhosis. *J Hepatol.* 2001; 35:590–597. [PubMed].
 - **Baik SK, Jeong PH, Ji SW, Yoo BS, Kim HS, Lee DK, et al.** acute hemodynamic effects of octreotide and terlipressin in patients with cirrhosis: a randomized comparison. *Am J Gastroenterol* 2005; 100:6315.
 - **Bajaj JS, Ananthakrishnan A, Saeian K.** Survey of attitudes of AASLD members toward balloon tamponade. *Hepatology* 2005; 41: 1435
Banares R, Albillos A, and Rincon D, et al.: Endoscopic treatment versus endoscopic plus pharmacologic treatment for acute variceal bleeding: a meta-analysis. *Hepatology* 2002, 305:609-615. * This meta-analysis shows that the ideal therapy for acute variceal hemorrhage is probably a combination of endoscopic and pharmacologic therapy. 1436.
 - **Banares R, Moitinho E, and Matilla A, et al.:** Randomized comparison of long-term carvedilol and propranolol administration in the treatment of portal hypertension in cirrhosis. *Hepatology* 2002, 36:1367-1373.
 - **Bauer TM, Follo A, and Navasa M, et al.:** Daily norfloxacin is more effective than weekly rifloxacin in prevention of spontaneous bacterial peritonitis recurrence. *Dig Dis Sci* 2002, 47:1356-1361.

- **Bellis L, Berzigotti A, Abraldes JG, et al.** Low doses of isosorbide mononitrate attenuates the postprandial increase in portal pressure in patients with cirrhosis. *Hepatology* 2003; 37:378-84.[CrossRef]
- **Borroni G, Salerno F, and Cazzaniga M, et al.:** Nadolol is superior to isosorbide mononitrate for the prevention of the first variceal bleeding in cirrhotic patients with ascites. *J Hepatol* 2002, 37:315-321.
- **Bosch J, Abraldes JG, Groszmann R.** Current management of portal hypertension. *J Hepatol* 2003; 38(Suppl 1):S54-68.
- **Bosch J, Abraldes JG.** Variceal bleeding: pharmacological therapy. *Dig Dis* 2005; 23:18–29.
- **Bosch J, Dell'era A.** [Vasoactive drugs for the treatment of bleeding esophageal varices]. *Gastroenterol Clin Biol* 2004; 28 Spec No 2:B186-9.
- **Bosch J, Garcia-Pagan JC.** Prevention of variceal rebleeding. *Lancet* 2003; 361:952-954.[Medline].
- **Bosch J, Thabut D, Albillos A, Carbonell N, Spicak J, and Massard J, et al.** Recombinant factor VIIa (rFVIIa) for active variceal bleeding in patients with advanced cirrhosis: a multi-center randomized double-blind placebo-controlled trial. *Hepatology* 2008 (in press).
- **Bosch J, Thabut D, Bendtsen F, D'Amico G, Albillos A, Gonzalez AJ, et al.** Recombinant factor VIIa for upper gastrointestinal bleeding in patients with cirrhosis: a randomized, double-blind trial. *Gastroenterology* 2004; 127:1123–30.

- **Boyer TD, Haskal ZJ.** The role of transjugular intrahepatic portosystemic shunt in the management of portal hypertension. *Hepatology* 2005; 41:386-400.[CrossRef][Medline]
- **Bureau C, Garcia-Pagan JC, Otal P, et al.** Improved clinical outcome using polytetrafluoroethylene-coated stents for TIPS: results of a randomized study. *Gastroenterology* 2004; 126:469-475.[CrossRef][Medline]
- **Calès P, Masliah C, Bernard B, et al.** Early administration of vapreotide for variceal bleeding in patients with cirrhosis. French Club for the Study of Portal Hypertension. *N Engl J Med* 2001; 344:23-8.[Abstract/Free Full Text].
- **Calès P, Oberti F, Bernard-Chabert B, et al.** Evaluation of Baveno recommendations for grading esophageal varices. *J Hepatol* 2003; 39:657-659.[CrossRef][Medline].
- **Calès P.** Optimal use of propranolol in portal hypertension. *Gastroenterol Clin Biol* 2005; 29:207-8.[Medline].
- **Carbonell N, Pauwels A, Serfaty L, Fourdan O, Levy VG, Poupon R.** Improved survival after Variceal bleeding in patients with cirrhosis over the past two decades. *Hepatology* 2004; 40:652–659.
- **Chalasani N, Kahi C, Francois F, Pinto A, Marathe A, Bini EJ, et al.** Improved patient survival after acute Variceal bleeding: a multicenter, cohort study. *Am J Gastroenterol* 2003; 98:653–659.
- **Chen W, Nikolova D, Frederiksen SL, Gluud C.** Beta-blockers reduce mortality in cirrhotic patients with esophageal varices who have never bled (Cochrane review). *J Hepatol* 2004; 40(suppl 1): 67

References

- Cooperative Study Group of Octreotide in China. Efficacy of Octreotide in the treatment of acute variceal bleeding in cirrhotic patients:
- A prospective, multicentric and randomized clinical trial. Chin J Dig (Chin) 2005; 25: 37-40.
- **D'Amico G, De Franchis R.** Upper digestive bleeding in cirrhosis. Post-therapeutic outcome and prognostic indicators. Hepatology 2003; 38:599-612.[Medline]
- **D'Amico G, Garcia-Pagan JC, Luca A, Bosch J.** HVPG reduction and prevention of variceal bleeding in cirrhosis. A systematic review. Gastroenterology 2006; 131:1624.
- **D'Amico G, Garcia-Tsao G, Pagliaro L.** Natural history and prognostic indicators of survival in cirrhosis: a systematic review of 118 studies. J Hepatol 2006; 44:217-31.[CrossRef][Medline].
- **D'Amico G, Luca A, and Morabito A,** et al. uncovered transjugular intrahepatic portosystemic shunt for refractory ascites: a meta-analysis. Gastroenterology 2005; 129: 1282-93.
- **D'Amico G, Pagliaro L, Bosch J.** The treatment of portal hypertension: a meta-analytic review. Hepatology 1995; 22:332–354.CrossRefMedline.
- **D'Amico G, Pagliaro L, Bosch J.** Pharmacological treatment of portal hypertension: an evidence-based approach. Semin Liver Dis 1999;19: 475-505.
- **D'Amico G, Pietrosi G, Tarantino I, Pagliaro L.** Emergency sclerotherapy versus vasoactive drugs for Variceal bleeding in

- cirrhosis: a Cochrane meta-analysis 2. *Gastroenterology* 2003; 124:1277-1291.
- **De BK, Das D, Sen S, et al.:** Acute and 7-day portal pressure response to carvedilol and propranolol in cirrhotics. *J Gastroenterol Hepatol* 2002, 17:183-189.
 - **De Franchis R, Dell'Era A, Iannuzzi F.** Diagnosis and treatment of portal hypertension. *Dig Liver Dis* 2004; 36:787–798. CrossRefMedline.
 - **De Franchis R.** Evolving consensus in portal hypertension. Report of the Baveno IV consensus workshop on methodology of diagnosis and therapy in portal hypertension [published erratum in *J Hepatol* 2005; 43(3):547]. *J Hepatol* 2005; 43:167-176.[CrossRef].
 - **De Franchis R. Portal hypertension IV.** In: *Proceedings of the Fourth Baveno International Workshop*. Oxford: Blackwell Publishing Ltd.; 2006.
 - **De Franchis R, Primignani M.** Endoscopic treatment for portal hypertension. *Semin Liver Dis* 1999; 19:439-455.
 - **De Franchis R, Primignani M.** Natural history of portal hypertension in patients with cirrhosis. *Clin Liver Dis* 2001; 5:645-63.[CrossRef] [Medline]
 - **De la Pena J, Brullet E, Sanchez-Hernandez E, Rivero M, Vergara M, Martin-Lorente JL, et al.** Variceal ligation plus nadolol compared with ligation for prophylaxis of variceal rebleeding: a multicenter trial. *HEPATOLOGY* 2005; 41:572-578. *HEPATOLOGY*, Vol. 46, No. 3, 2007 GARCIA-TSAO ET AL. 937

- **Dell'era A, Bosch J.** Review article: the relevance of portal pressure and other risk factors in acute gastro-oesophageal variceal bleeding [review]. *Aliment Pharmacol Ther* 2004; 20(Suppl 3):8-15; discussion 16-7.[Medline].
- **Dib N, Konate A, Oberti F, et al.** Non-invasive diagnosis of portal hypertension in cirrhosis. Application to the primary prevention of varices. *Gastroenterol Clin Biol* 2005; 29:957-87.
- **Dong MH, Saab S.** Complications of cirrhosis. *Dis Mon* 2008; 54: 445-456.
- **Drugs. 2008.** Variceal bleeding :pharmacological treatment and prophylactic strategies.
- **Dudenhoefer AA, Loureiro-Silva MR, and Cadelina GW, et al.:** Bioactivation of nitroglycerin and vasomotor response to nitric oxide are impaired in cirrhotic rat livers. *Hepatology* 2002, 36:381-385.
- **Duggan JM.** Review article: transfusion in gastrointestinal haemorrhage — If, when and how much? *Aliment Pharmacol Ther* 2001; 15:1109-13.[Medline]
- **Duvoux C, Zanditenas D, and Hezode C, et al.:** Effects of noradrenalin and albumin in patients with type I hepatorenal syndrome: a pilot study. *Hepatology* 2002, 36:374-380.
* This study shows that noradrenaline is an alternative to terlipressin (not available in the United States) in the management of HRS.
- **Escorsell A, Banares R, Garcia-Pagan JC, et al.:** TIPS versus drug therapy in preventing variceal rebleeding in advanced cirrhosis: a randomized controlled trial. *Hepatology* 2002, 35:385-392.

- **Escorsell A, Bandi JC, Andreu V**, et al. Desensitization to the effects of intravenous octreotide in cirrhotic patients with portal hypertension. *Gastroenterology* 2001; 120: 161-9.[CrossRef][Medline].
- **Escorsell A, Feu F, Bordas JM**, et al.. Effects of isosorbide-5-mononitrate on variceal pressure and systemic and splanchnic haemodynamics in patients with cirrhosis. *J Hepatol* 1996; 24:423–429Medlin
- **Escorsell A, Gines A, and Llach J**, et al.: Increasing intra-abdominal pressure increases pressure, volume, and wall tension in esophageal varices. *Hepatology* 2002, 36:936-940.
- **Fabrizi F, Dixit V, Martin P**. Meta-analysis: terlipressin therapy for the hepatorenal syndrome. *Aliment Pharmacol Ther* 2006; 24:935–944.
- **Fernandez J, Ruiz del AL, Gomez C, Durandez R, Serradilla R, Guarner C**, et al. Norfloxacin vs. ceftriaxone in the prophylaxis of infections in patients with advanced cirrhosis and hemorrhage. *Gastroenterology* 2006; 131:1049–1056.
- **Garcia-Pagán JC, Morillas R, Banares R**, et al.Spanish Variceal Bleeding Study Group. Propranolol plus placebo versus propranolol plus isosorbide-5-mononitrate in the prevention of a first variceal bleed: a double-blind RCT. *Hepatology* 2003; 37:1260–1266.Medline.
- **Garcia-Pagan JC, Villanueva C, Vila MC**, et al. Isosorbide mononitrate in the prevention of first variceal bleed in patients who cannot receive beta-blockers. *Gastroenterology* 2001; 121:908-914.[Medline] .
- **Garcia-Tsao G**. Current management of the complications of cirrhosis and portal hypertension: variceal hemorrhage, ascites, and

- spontaneous bacterial peritonitis. *Gastroenterology* 2001; 120:726-748.[CrossRef][Medline]
- **Garcia-Tsao G, Sanyal AJ, Grace ND, Carey W;** Practice Guidelines Committee of the American Association for the Study of Liver Diseases; Practice Parameters Committee of the American College of Gastroenterology. Prevention and management of gastroesophageal varices and variceal hemorrhage in cirrhosis. *Hepatology* 2007; 46: 922-938.
 - **Gines P, Uriz J, and Calahorra B,** et al.: Transjugular intrahepatic portosystemic shunting versus repeated paracentesis plus intravenous albumin for refractory ascites in cirrhosis: a multicenter randomized comparative study. *Gastroenterology* 2002, 123:1839-1847. ** Largest study published so far showing no differences in mortality between TIS and large-volume paracentesis, with greater rates of severe encephalopathy and higher costs with TIPS.
 - **Gluud LL, Klingenberg S, Nikolova D, Gluud C.** Banding ligation versus beta-blockers as primary prophylaxis in esophageal varices: systematic review of randomized trials. *Am J Gastroenterol.* Dec 2007; 102(12):2842-8; quiz 2841, 2849.
 - **Goldman L, Ausiello DA. Cecil Medicine. 23rd ed. Philadelphia, Pa: Saunders Elsevier; 2007. Gonzalez-Abraldes J, Albillos A, Banares R, et al.** Randomized comparison of long-term losartan versus propranolol in lowering portal pressure in cirrhosis. *Gastroenterology* 2001; 121:382–388. CrossRef Medline
 - **Gotzsche PC, Hrobjartsson A.** Somatostatin analogues for acute bleeding oesophageal varices. *Cochrane Database Syst Rev* 2005:CD000193.

- **Goulenok C, Bernard B, Cadranel J F, et al.:** Flumazenil vs. placebo in hepatic encephalopathy in patients with cirrhosis: a meta-analysis. *Aliment Pharmacol Ther* 2002, 16:361-372.
- **Gournay J, Masliah C, Martin T, Perrin D, Galmiche JP.** Isosorbide mononitrate and propranolol compared with propranolol alone for the prevention of variceal rebleeding. *HEPATOLOGY* 2000; 31:1239-1245.
- **Graupera M, Garcia-Pagan JC, and Titos E, et al.:** 5-lipoxygenase inhibition reduces intrahepatic vascular resistance of cirrhotic rat livers: a possible role of cysteinyl-leukotrienes. *Gastroenterology* 2002, 122:386-393
- **Greenwald BD, Caldwell SH, Hespenheide EE.** N-2-butylcyanoacrylate for bleeding gastric varices: a United States pilot study and cost analysis. *Am J Gastroenterol* 2003; 98:1982-8.
- **Gralnek IM, Jensen DM, Kovacs TO, et al.** The economic impact of esophageal variceal hemorrhage: cost-effectiveness implications of endoscopic therapy. *Hepatology*. 1999; 29:44–50. [PubMed].
- **Groszmann RJ, Garcia-Tsao G, Bosch J, et al.** Portal Hypertension Collaborative Group. Beta-blockers to prevent gastroesophageal varices in patients with cirrhosis. *N Engl J Med* 2005; 353:2254–2261. Abstract/FREE Full Text.
- **Groszmann RJ, Garcia-Tsao G:** Endoscopic variceal banding vs. pharmacological therapy for the prevention of recurrent variceal hemorrhage: what makes the difference? *Gastroenterology* 2002, 123:1388-1391.
- **Groszmann RJ, Garcia-Tsao G, Makuch RW, et al.** Multicenter randomized placebo-controlled trial of non-selective beta-blockers in

the prevention of the complications of portal hypertension: final results and identification of a predictive factor. *Hepatology* 2003; 38:206A.

- **Groszmann RJ, Wongcharatrawee S.** The hepatic venous pressure gradient: anything worth doing should be done right. *Hepatology* 2004; 39:280–282. CrossRefMedlineWeb of Science.
- **Gulberg V, Schepke M, and Geigenberger G,** et al.: Transjugular intrahepatic portosystemic shunting is not superior to endoscopic variceal band ligation for prevention of variceal rebleeding in cirrhotic patients: a randomized, controlled trial. *Scand J Gastroenterol* 2002, 37:338-343.
- **Guyader D, Patat A, Ellis-Grosse EJ,** et al.: Pharmacodynamic effects of a nonpeptide antidiuretic hormone V2 antagonist in cirrhotic patients with ascites. *Hepatology* 2002, 36:1197-1205.
- **Habib A, Sanyal AJ.** Acute variceal hemorrhage. *Gastrointest Endoscope Clin N Am* 2007; 17: 223-252.
- **Heemann U, Treichel U, and Looock J.** et al.: Albumin dialysis in cirrhosis with superimposed acute liver injury: a prospective, controlled study. *Hepatology* 2002, 36:949-958. Interesting randomized study showing that MARS is associated with an improvement in 30-day survival and in hepatic encephalopathy.
- **Henderson JM, Boyer TD, Kutner MH, Galloway JR, Rikkers LF, Jeffers LJ,** et al. Distal splenorenal shunt versus transjugular intrahepatic portal systematic shunt for variceal bleeding: a randomized trial. *Gastroenterology* 2006; 130:1643-1651

- **Henderson JM.** Salvage therapies for refractory variceal hemorrhage. Clin Liver Dis 2001; 5: 709-725.
- **Hicken BL, Sharara AI, Abrams GA, Eloubeidi M, Fallon MB, Arguedas MR.** Hepatic venous pressure gradient measurements to assess response to primary prophylaxis in patients with cirrhosis: a decision analytical study. Aliment Pharmacol Ther 2003; 17:145–153.Medline
- **Hou MC, Lin HC, Liu TT, Kuo BI, Lee FY, Chang FY, et al.** Antibiotic prophylaxis after endoscopic therapy prevents rebleeding in acute variceal hemorrhage: a randomized trial. Hepatology 2004; 39:746-53.
- **Huet PM, Pomier-Layrargues G.** The hepatic venous pressure gradient: "remixed and revisited" [review]. Hepatology 2004; 39:2958.
- **Imperiale TF, Chalasani N.** A meta-analysis of endoscopic variceal ligation for primary prophylaxis of esophageal variceal bleeding. Hepatology 2001; 33:802–807. CrossRefMedline
- **Ioannou GN, Doust J, Rockey DC.** Systematic review: terlipressin in acute oesophageal variceal haemorrhage. Aliment Pharmacol Ther 2003; 17:53-64.[Medline]
- **Iwakiri Y, Cadelina G, and Sessa WC, et al.:** Mice with targeted deletion of eNOS develop hyperdynamic circulation associated with portal hypertension. Am J Physiol 2002, 263:G1074-G1081.
- **Jensen DM:** Endoscopic screening for varices in cirrhosis: findings, implications, and outcomes. Gastroenterology 2002, 122:1620-1630.

- **Jutabha R, Jensen DM, Martin P, Savides T, Han SH, Gornbein J.** Randomized study comparing banding and propranolol to prevent initial variceal hemorrhage in cirrhotics with high-risk esophageal varices. *Gastroenterology* 2005; 128:870–881.
- **Kamath PS.** esophageal variceal bleeding: primary prophylaxis. *Clin Gastroenterol Hepatol* 2005; 3:90–93. (Medline).
- **Khan S, Tudur Smith C, Williamson P, Sutton R.** Portosystemic shunts versus endoscopic therapy for variceal rebleeding in patients with cirrhosis. *Cochrane Database Syst Rev* 2006; (4): CD000553.
- **Khuroo MS, Khuroo NS, Farahat KLC, Khuroo YS, Sofi AA, Dahab ST.** Meta-analysis: endoscopic variceal ligation for primary prophylaxis of oesophageal variceal bleeding. *Aliment Pharmacol Ther* 2005; 21:347–361
- **Kircheis G, Wettstein M, Timmerman L, et al.:** Critical flicker frequency for quantification of low-grade hepatic encephalopathy. *Hepatology* 2002, 35:357-366.
- **Krag A, Adamsen S, Bendtsen F.** Endoscopic treatment of bleeding esophageal varices. *Endoscopy* 2007; 39:373.
- **Krag A, Borup T, Møller S, Bendtsen F.** Efficacy and safety of terlipressin in cirrhotic patients with variceal bleeding or hepatorenal syndrome. *Adv Ther* 2008; 25: 1105-1140.
- **Krag A, Moller S, Henriksen JH, Holstein-Rathlou N, Larsen F, Bendtsen F.** Terlipressin improves renal function in patients with cirrhosis and ascites without hepatorenal syndrome. *Hepatology* 2007; 46:1863.

- **Krige JE, Beckingham IJ.** ABC of diseases of liver, pancreas, and biliary system. Portal hypertension-1: varices. *BMJ*. 2001; 322:348–351. [PubMed].
- **Krige JEJ, Bornman Shaw JM, et al.** Complications of endoscopic variceal therapy. *S Afr J Surg*. 2005; 43:177–194. [PubMed].
- **Krige JE, Kotze UK, Bornman PC, Shaw JM, Klipin M.** Variceal recurrence, rebleeding, and survival after endoscopic injection sclerotherapy in 287 alcoholic cirrhotic patients with bleeding esophageal varices. *Ann Surg* 2006; 244:764–770.
- **Krige JE, Shaw JM, Bornman PC.** The evolving role of endoscopic treatment of esophageal varices. *World J Surg*. 2005; 29:966–973. [PubMed].
- **Krige JEJ, Terblanche J, Bornman PC.** Complications of endoscopic variceal sclerotherapy. In: Sivak MV, ed. *Gastroenterologic Endoscopy*, 2nd ed. Philadelphia: Saunders, 1999.
- **Lay CS, Tsai YT, Lee FY, et al.** Endoscopic variceal ligation versus propranolol in prophylaxis of first variceal bleeding in patients with cirrhosis. *J Gastroenterol Hepatol* 2006; 21:413–419.[Medline](#)
- **Lay CS, Tsai YT, Teg CY, et al.** Endoscopic variceal ligation in prophylaxis of first variceal bleeding in cirrhotic patients with high-risk esophageal varices. *Hepatology* 1997; 25:1346–1350. [CrossRefMedline](#).
- **Lebrech D, Vinel JP, Dupas JL.** Complications of portal hypertension in adults: a French consensus. *Eur J Gastroenterol Hepatol* 2005; 17:403–410.[Medline](#).

References

- **Lo GH, Chen WC, Chen MH, Lin CP, Lo CC, Hsu PI, et al.** Endoscopic ligation vs. nadolol in the prevention of first variceal bleeding in patients with cirrhosis. *Gastrointest Endosc* 2004; 59: 333-338Links.
- **Lo G-H, Chen W-C, Chen M-H, et al.:** A prospective, randomized trial of endoscopic variceal ligation versus nadolol and isosorbide mononitrate for the prevention of esophageal variceal rebleeding. *Gastroenterology* 2002, 123:728-734.
- **Lo GH, Lai KH, Cheng JS.** A prospective, randomized trial of butyl cyanoacrylate injection versus band ligation in the management of bleeding gastric varices. *Hepatology* 2001; 33: 1060-4.
- **Lo GH, Lai KH, Cheng JS, Chen MH, Huang HC, Hsu PI, et al.** Endoscopic variceal ligation plus nadolol and sucralfate compared with ligation alone for the prevention of variceal rebleeding: a prospective, randomized trial. *HEPATOLOGY* 2000; 32:461-465
- **Luca A, D'Amico G, LaGalla R, Midiri M, Morabito A, Pagliaro L.** TIPS for prevention of recurrent bleeding in patients with cirrhosis: meta-analysis of randomized clinical trials. *Radiology* 1999; 212:411-421.
- **Lubel JS, Angus PW.** Modern management of portal hypertension. *Intern Med J* 2005; 35: 45-9.
- **Lui HF, Stanley AJ, Forrest EH, Jalan R, Hislop WS, Mills PR, et al.** Primary prophylaxis of variceal hemorrhage: a randomized controlled trial comparing band ligation, propranolol, and isosorbide mononitrate. *Gastroenterology* 2002; 123:735 744. CrossRefMedline.
- **Luketic VA.** Management of portal hypertension after variceal hemorrhage [review]. *Clin Liver Dis* 2001; 5:677-707, ix.[Medline].

- **Madonia S, D'Amico G, Traina M**, et al. Prognostic indicators of successful endoscopic sclerotherapy for prevention of rebleeding from oesophageal varices in cirrhosis: a long-term cohort study. *Dig Liver Dis.* 2000; 32:782–791. [PubMed].
- **Mahadeva S, Bellamy MC, Kessel D.** Cost-effectiveness of N- butyl-2-cyanoacrylate (histoacryl) glue injections vs. transjugular intrahepatic portosystemic shunt in the management of acute gastric variceal bleeding. *Am J Gastroenterol* 2003; 98: 2688–93
- **McCormick PA, O'Keefe C.** Improving prognosis following a first variceal haemorrhage over four decades. *Gut* 2001; 49:682-685. [Abstract/Free Full Text]
- **Menon KV, Kamath PS.** Regional and systemic hemodynamic disturbances in cirrhosis. [viii.]. *Clin Liver Dis* 2001; 5:617-627.[CrossRef][Medline].
- **Merkel C, Bolognesi M, Sacerdoti D**, et al. The hemodynamic response to medical treatment of portal hypertension as a predictor of clinical effectiveness in the primary prophylaxis of variceal bleeding in cirrhosis. *Hepatology* 2000; 32:930–934.CrossRefMedlineWeb of Science.
- **Merkel C, Marin R, Enzo E**, et al. Randomised trial of nadolol alone or with isosorbide mononitrate for primary prophylaxis of variceal bleeding in cirrhosis. Gruppo-Triveneto per L'ipertensione portale (GTIP). *Lancet* 1996; 348:1677–1681.CrossRefMedline.
- **Moreau R, Asselah T, and Condat B**, et al.: Comparison of the effect of terlipressin and albumin on arterial blood volume in patients

with cirrhosis and tense ascites treated by paracentesis: a randomized pilot study. *Gut* 2002, 50:90-94.

* Interesting preliminary study showing that terlipressin may be as effective as albumin in preventing PCD.

- **Moreau R, Durand F, Poynard T**, et al. Terlipressin in patients with cirrhosis and type 1 hepatorenal syndrome: a retrospective multicenter study. *Gastroenterology* 2002; 122:923 -930.[CrossRef][Medline] .
- **Merkel C, Marin R, Angeli P**, et al. Gruppo Triveneto per l’Ipertensione Portale. A placebo-controlled clinical trial of nadolol in the prophylaxis of growth of small esophageal varices in cirrhosis. *Gastroenterology* 2004; 127:476–484.Medline.
- **Moreau R, Lebrec D**. The use of vasoconstrictors in patients with cirrhosis: type 1 HRS and beyond. *Hepatology* 2006; 43:385–394.
- **Nakamura S, Konishi H, Kishino M**, et al. Prevalence of esophagogastric varices in patients with non-alcoholic steatohepatitis. *Hepatol Res*. Jun 2008; 38(6):572-579.
- **Nevens F**. Review article: a critical comparison of drug therapies in currently used therapeutic strategies for variceal haemorrhage [review]. *Aliment Pharmacol Ther* 2004; 20(Suppl 3):18-22; discussion 23.
- **Ninoi T, Nishida N, Kaminou T**. Balloon-occluded retrograde transvenous obliteration of gastric varices with gastro-renal shunt: long term follow-up in 78 patients. *AJR Am J Roentgenol* 2005; 184: 1340-1346.

References

- **Nishida N, Ninoi T, Kitayama Y.** Selective B-RTO of gastric varices with preservation of major portacaval shunt. *AJR AmJ Roentgenol* 2006; 186: 1155-7
- **Norberto L, Polese L, Cillo U, Grigoletto F, Burroughs AK, Neri D,** et al. A randomized study comparing ligation with propranolol for primary prophylaxis of variceal bleeding in candidates for liver transplantation. *Liver Transplant* 2007; 13: 1272-1278. [Links](#)
- **Ochs A.** Transjugular intrahepatic portosystemic shunt. *Dig Dis* 2005; 23: 56-64.
- **Ortega R, Gines P, Uriz J,** et al. Terlipressin therapy with and without albumin for patients with hepatorenal syndrome: results of a prospective, nonrandomized study. *Hepatology* 2002; 36:941-8. [Medline].
- **Papatheodoridis GV, Goulis J, Leandro G, Patch D, Burroughs AK.** Transjugular intrahepatic portosystemic shunt compared with endoscopic treatment for prevention of variceal rebleeding. A meta-analysis. *HEPATOLOGY* 1999; 30:612-622.
- **Patch D, Goulis J, Gerunda G,** et al.: A randomized controlled trial of medical therapy versus endoscopic ligation for the prevention of variceal rebleeding in patients with cirrhosis. *Gastroenterology* 2002, 123:1013-1019.
- **Perello A, Escorsell A, Bru C, Gilabert R, Moitinho E, Garcia-Pagan J C,** et al. Wedged hepatic venous pressure adequately reflects portal pressure in hepatitis C virus-related cirrhosis. *HEPATOLOGY* 1999; 30:1393-1397.

- **Pinto-Marques P, Romãozinho JM, Ferreira M, Amaro P, and Freitas D.** Esophageal perforation , associated risk with balloon tamponade after endoscopic therapy. Myth or reality? *Hepatogastroenterology* 2006; 53: 536-539.
- **Pinzani M, Gentilini P.** Biology of hepatic stellate cells and their possible relevance in the pathogenesis of portal hypertension in cirrhosis. *Semin Liver Dis* 1999; 19: 397-410.[Medline] .
- **Psilopoulos D, Galanis P, Goulas S, et al.** Endoscopic variceal ligation vs. propranolol for prevention of first variceal bleeding: a randomized controlled trial. *Eur J Gastroenterol Hepatol* 2005; 17:1111–1117.Medline.
- **Qureshi W, Adler DG, Davila R, Egan J, Hirota W, Leighton J, et al.** Standards of Practice Committee. ASGE Guideline: the role of endoscopy in the management of variceal hemorrhage, updated July 2005. *Gastrointest Endosc* 2005; 62: 651-655.
- **Rabiller A, Nunes H, and Lebrec D, et al.:** Prevention of gram-negative translocation reduces the severity of hepatopulmonary syndrome. *Am J Respir Crit Care Med* 2002, 166:514-517.
- Experimental study showing that long-term norfloxacin administration abolishes GNB translocation and ameliorates systemic and pulmonary vasodilatation.
- **Ryan BM, Stockbrugger RW, Ryan JM.** TIPS for gastric varices. *Gut* 2003; 52: 772
- **Romero-Gomez M, Grande L, Camacho I, et al.:** Altered response to oral glutamine challenge as prognostic factor for overt episodes in patients with minimal hepatic encephalopathy. *J Hepatol* 2002, 37:781-787.

- **Rosemurgy AS, Zervos EE.** Management of variceal hemorrhage. *Curr Probl Surg* 2003; 40: 263-343.
- **Ryan BM, Stockbrugger RW, Ryan JM.** A pathophysiologic, Gastroenterologic and radiologic approach to the management of gastric varices. *Gastroenterology* 2004; 126: 1175-89.
- **Saab S, Nieto JM, Ly D, et al.** TIPS versus paracentesis for cirrhotic patients with refractory ascites [review]. *Cochrane Database Syst Rev* 2004 ;(3):CD004889.
- **Saeed ZA, Stiegmann GV, Ramirez FC, Reveille RM, Goff JS, Hepps KS, et al.** Endoscopic variceal ligation is superior to combined ligation and sclerotherapy for esophageal varices: a multicenter prospective randomized trial. *HEPATOLOGY* 1997; 25:71-74.
- **Sarin SK, Jain a K, Jain M, et al.:** A randomized controlled trial of cyanoacrylate versus alcohol injection in patients with isolated fundic varices. *Am J Gastroenterol* 2002, 97:1010-1015.
- **Sarin SK, Wadhawan M, Agarwal SR, Tyagi P, Sharma BC.** Endoscopic variceal ligation plus propranolol versus endoscopic variceal ligation alone in primary prophylaxis of variceal bleeding. *Am J Gastroenterol* 2005; 100:797–804.Medline
- **Schepke M, Kleber G, Nurnberg D, et al..** Ligation versus propranolol for the primary prophylaxis of variceal bleeding in cirrhosis. *Hepatology* 2004; 40:65–72.CrossRef Medline.
- **Schepke M, Werner E, Biecker E, et al..** Hemodynamic effects of the angiotensin II receptor antagonist irbesartan in patients with cirrhosis and portal hypertension. *Gastroenterology* 2001; 121:389–395. Medline.

References

- **Schneider AW, Kalk JF, Klein CP.** Effect of losartan, an angiotensin II receptor antagonist, on portal pressure in cirrhosis. *Hepatology* 1999; 29:334–339.CrossRefMedlineWeb of Science.
- **Schuppan D, Afdhal NH.** Liver cirrhosis. *Lancet* 2008; 371: 838-851.
- **Seewald S, Sriram PV, Naga M, et al.** Cyanoacrylate glue in gastric variceal bleeding. *Endoscopy* 2002; 34:926-932.[Medline].
- **Shaheen NJ, Stuart E, Schmitz SM, Mitchell KL, Fried MW, Zacks S, et al.** Pantoprazole reduces the size of postbanding ulcers after variceal band ligation: a randomized, controlled trial. *HEPATOLOGY* 2005; 41: 588-594.
- **Shah V, Long KH.** Modeling our way toward the optimal management of variceal hemorrhage. *Am J Gastroenterol* 2004; 99: 1289-1290.
- **Shimoda R, Horiuchi K, Hagiwara S.** Short-term complications of retrograde transvenous obliteration of gastric varices in patients with portal hypertension: effects of obliteration of major portosystemic shunts. *Abdom Imaging*, 2005; 30: 306- 313.
- **Singh P, Pooran N, and Indaram A, et al.:** Combined ligation and sclerotherapy versus ligation alone for secondary prophylaxis of esophageal variceal bleeding: a meta-analysis. *Am J Gastroenterol* 2002, 97:623-629.
- **Soares-Weiser K, Brezis M, Tur-Kaspa R, et al.** Antibiotic prophylaxis of bacterial infections in cirrhotic inpatients: a meta-analysis of randomized controlled trials. *Scand J Gastroenterol* 2003;38:193-200.[Medline].

- **Sola-Vera J, Minana J, Ricart E, Planella M, Gonzalez B, Torras X**, et al. Randomized trial comparing albumin and saline in the prevention of paracentesis-induced circulatory dysfunction in cirrhotic patients with ascites. *Hepatology* 2003; 37:1147–1153.
- **Song D, Liu H, Sharkey K A**, et al.: Hyperdynamic circulation in portal-hypertensive rats is dependent on central c-fos gene expression. *Hepatology* 2002, 35:159-166.
- **Sorbi D, Gostout CJ, Peura D**, et al. An assessment of the management of acute bleeding varices: a multicenter prospective member-based study. *Am J Gastroenterol.* 2003; 98:2424–2434. [PubMed].
- **Spahr L, Martin PY, Giostra E**, et al.: Acute effects of nitric oxide synthase inhibition on systemic, hepatic, and renal hemodynamics in patients with cirrhosis and ascites. *J Invest Med* 2002, 50:116-124.
- **Such J, Frances R, Munoz C**, et al.: Detection and identification of bacterial DNA in patients with cirrhosis and culture-negative, nonneutrocytic ascites. *Hepatology* 2002, 36:135-141.
- **Tait IS, Krige JE, Terblanche J**. Endoscopic band ligation of oesophageal varices. *Br J Surg.* 1999; 86:437–446. [PubMed].
- **Talwalkar JA, Kamath PS**. An evidence-based medicine approach to beta-blocker therapy in patients with cirrhosis. *Am J Med* 2004; 116:759-66. [Medline] .
- **Tandon P, Garcia-Tsao G**. Bacterial infections, sepsis, and multiorgan failure in cirrhosis. *Semin Liver Dis* 2008; 28: 26-42.

- **Tanoue S, Kiyosue H, Matsumoto S.** Development of new coaxial balloon catheter system for B-RTO. *Cardiovascular Intervent Radiol* 2006; 29: 991-996.
- **Tazi KA, Barriere E, and Moreau R, et al.:** Role of shear stress in aortic eNOS up-regulation in rats with biliary cirrhosis. *Gastroenterology* 2002, 122:1869-1877.
- **Thabut D.** [Gastrointestinal hemorrhage. How to prevent rebleeding: role of pharmacological and endoscopic treatments]. *Gastroenterol Clin Biol* 2004;28(Spec No 2):B73-82.
- **Tomikawa M, Hashizume M, Okita K, et al.** Endoscopic injection sclerotherapy in the management of 2105 patients with esophageal varices. *Surgery*. 2002; 131(suppl):171–175.
- **Toubia N, Sanyal AJ.** Portal hypertension and variceal hemorrhage. *Med Clin North Am* 2008; 92: 551-574.
- **Tripathi D, Ferguson JW, Therapondos G.** Review article: recent advances in the management of bleeding gastric varices. *Aliment Pharmacol Ther* 2006; 24: 1-17.
- **Uriz J, Gines P, Cardenas A, et al.** Terlipressin plus albumin infusion: an effective and safe therapy of hepatorenal syndrome. *J Hepatol* 2000; 33:43-8.[CrossRef][Medline].
- **Van de Casteele M, Omasta A, and Janssens S, et al.:** In vivo gene transfer of endothelial nitric oxide synthase decreases portal pressure in anesthetised carbon tetrachloride cirrhotic rats. *Gut* 2002, 51:440-445. * Experimental study of effective gene therapy for portal hypertension.

- **Villanueva C, Balanzˆ J.** Variceal bleeding: pharmacological treatment and prophylactic strategies. *Drugs* 2008; 68: 2303-2324.
- **Villanueva C, Minana J, Ortiz J, Gallego A, Soriano G, Torras X,** et al. Endoscopic ligation compared with combined treatment with nadolol and isosorbide mononitrate to prevent recurrent variceal bleeding. *N Engl J Med* 2001; 345:647-655.
- **Villanueva C, Ortiz J, Minana J,** et al. Somatostatin treatment and risk stratification by continuous portal pressure monitoring during acute variceal bleeding. *Gastroenterology* 2001; 121:110-117.[Medline] .
- **Villanueva C, Piqueras M, Aracil C, Gˆmez C, Lˆpez-Balaguer JM, Gonzalez B,** et al. A randomized controlled trial comparing ligation and sclerotherapy as emergency endoscopic treatment added to somatostatin in acute variceal bleeding. *J Hepatol* 2006; 45: 560-567.
- **Vorobioff J, Gamen M, Kravetz D,** et al.: Effects of long-term propranolol and octreotide on postprandial hemodynamics in cirrhosis: a randomized, controlled trial. *Gastroenterology* 2002, 122:916-922. As octreotide blunts the postprandial increase in portal pressure not prevented by long-term propranolol, it could be a useful adjuvant to propranolol in the treatment of portal hypertension.
- **Waked I, Korula J.** Analysis of long-term endoscopic surveillance during follow-up after variceal sclerotherapy from a 13-year experience. *Am J Med.* 1997; 102:192–199. [PubMed].
- **Wiest R, Groszmann RJ:** The paradox of nitric oxide in cirrhosis and portal hypertension: Too much, not enough. *Hepatology* 2002, 35:478-491. ** Comprehensive review summarizing available data regarding

the complex interactions of NO in portal hypertension (too much in the extrahepatic circulation, not enough in the intrahepatic circulation).

- **Yoshida H, Onda M, Tajiri T.** New techniques: combined endoscopic injection sclerotherapy and ligation for acute bleeding from gastric varices. *Hepatogastroenterology* 2002; 49:932–934.
- **Yuksel O, Koklu S, Arhan M, Yolcu OF, et al.** Effects of esophageal variceal eradication on portal hypertensive gastropathy and fundal varices: a retrospective and comparative study. *Dig Dis Sci* 2006; 51:27–30.Medline.
- **Zargar SA, Javid G, and Khan B A, et al.** Endoscopic ligation compared with sclerotherapy for bleeding esophageal varices in children with extrahepatic portal venous obstruction. *Hepatology* 2002, 36:666-672.
- **Zuberi BF, Baloch Q.** Comparison of endoscopic variceal sclerotherapy alone and in combination with octreotide in controlling acute variceal hemorrhage and early rebleeding in patients with low risk cirrhosis. *Am J Gastroenterol* 2000; 95:768-771.[Medline].