



Absorbable stents for treatment of benign biliary strictures: long-term follow-up in the prospective Spanish registry: prospective, multicenter, observational, non-randomized study.

De Gregorio MA, Criado E, Guirola JA, Alvarez-Arranz E, Pérez-Lafuente M, Barrufet M, Ferrer-Puchol MD, Lopez-Minguez S, Urbano J, Lanciego C, Aguinaga A, Capel A, Ponce-Dorrego MD, Gregorio A; Spanish group BiELLA
European Society of Radiology 2020, <https://doi.org/10.1007/s00330-020-06797-7>

159 patients with benign biliary strictures, mostly postsurgical, were enrolled for implantation of absorbable biliary stents between January 2014 and September 2018. In all patients, stent placement was immediately technically and clinically successful. The primary mean patency for stent was 86.7%, 79.6%, and 78.9% at 12, 36, and 60 months. Biliary restenosis and occlusion occurred in 40 (26.6%) patients where 18 (12%) were treated with another stent and 22 (14.6%) patients had an operative repair of the recurrent strictures. Stent placement improved clinical symptoms in all patients and there were no major complications associated with stent implantation. Implantation of an absorbable polydioxanone biliary stent is safe and effective for treatment of benign biliary strictures refractory to balloon dilatation or other biliary interventions.

Benign biliary strictures refractory to standard bilioplasty treated using polydioxanone biodegradable biliary stents: retrospective multicentric data analysis on 107 patients.

Mauri G, Michelozzi C, Melchiorre F, Poretti D, Pedicini V, Salvetti M, Criado E, Falcò Fages J, De Gregorio MÁ, Laborda A, Sonfienza LM, Cornalba G, Monfardini L, Panek J, Andrasina T, Gimenez M.
European Society of Radiology 2016, <https://doi.org/10.1007/s00330-020-06797-7>

A total of 107 patients (61 males, 46 females, mean age 59 ± 16 years) were treated with benign biliary strictures. The procedure was 100% successful and feasible in all cases. The mean follow-up was 23 ± 12 months and in this period occurred a stent migration in 2% of cases and 4% of patients experienced mild haemobilia. In 19/97 patients (18 %), stricture recurrence occurred. The mean time to stricture recurrence was 38 months (95% C.I 34 – 42 months). The study concludes that percutaneous placement of a BBS is an effective, feasible and safe strategy in the treatment of benign biliary strictures.

Biodegradable Biliary Stents for Percutaneous Treatment of Post-liver Transplantation Refractory Benign Biliary Anastomotic Strictures: retrospective observational study.

Battistel M, Senzolo M, Ferrarese A, Lupi A, Cillo U, Boccagni P, Zanusi G, Stramare R, Quaia E, Burra P, Barbiero G. Cardiovascular Interventional Radiological Society of Europe 2020, <https://doi.org/10.1007/s00270>

*Between January 2014 and June 2017 were included 74 patients with liver transplantation, where 18 patients underwent PTC biodegradable biliary stents (BBS) placement because of refractory stenoses. **BBS placement was successful in all 18 patients.** A stricture occurred in 5 cases after median follow-up 27 months (only 1 within 6 months). **This retrospective study demonstrated that BBS placement should be considered as a new tool for the management of benign biliary anastomotic stricture in adult after liver transplantation.***

Biodegradable versus multiple plastic stent implantation in benign biliary strictures: A systematic review and meta-analysis

Gonçalo G. Almeida, Paulo Donato
European journal of radiology 2020, www.elsevier.com/locate/ejrad

***3 studies for biodegradable biliary stents (BDBS, n = 133) and 6 studies for multiple plastic stents (MPS, n = 441) were considered.** The success rate (no stricture recurrence) was in BDBS 83% (95% [CI], 0.76 – 0.89), compared to 84% (95% [CI], 0.78 – 0.89) in the MPS group. Stent-related complication rates were reported to be slightly inferior in the BDBS group when compared to MPS, except for cholangitis (24.1% vs. 6.1%) and haemobilia (3% vs. < 1%). **On average, BDBS required less interventions than MPS use (1 vs. 3).** The insertion of BDBS in the treatment of benign biliary strictures does not seem to be inferior to multiple plastic stents in resolving and maintaining long-term biliary duct patency, albeit exhibiting higher rates of post-procedural cholangitis.*

Percutaneous Transhepatic Biodegradable Biliary Stent Placement for Benign Biliary Strictures: Retrospective observational study

Shaima Abulqasim, Mohammad Arabi, Khalid Almasar, Bayan AlBdah, Refaat Salman
Digestive Disease Intervention, 2021

*In the period of July 2016 and August 2019 were included **19 patients** in the study. 17 patients had liver transplantation, 1 patient had a hepaticojejunostomy and 1 patient had iatrogenic occlusion. **Stents were successfully deployed in all 19 patients and patency rate was 90% (17/19) at 6 months and 80% (12/15) at 12 months.** 7 patients in the study had stricture recurrence and needed reintervention with mean time to reintervention of 418 days (range: 8–1,155 days). There was 1 major complication due to cholangitis and sepsis which required a treatment with piperacillin/tazobactam for 10 days. No procedure-related pancreatitis or deaths occurred. **Biodegradable stents are a safe and effective treatment option for benign biliary strictures and can achieve long-term patency without the need for reinterventions.***

Role of Biodegradable Stents as Part of Treatment of Biliary Strictures after Pediatric and Adult Liver Transplantation: An Observational Single-Center Study

Dopazo C, Diez I, Quintero J, Curell A, González-Junyent C, Caralt M, Pando E, Lázaro JL, Molino JA, Juamperez J, Castells L, Pérez M, Bilbao I, Segarra A, Charco R.
Journal of Vascular and Interventional Radiology, 2018

*This report presents the results of **20 adult and pediatric patients** treated with the use of BD biliary stents for benign biliary strictures after liver transplantation. Stent insertions were always feasible (100%), and only 1 case of acute pancreatitis was observed (5%). **The overall clinical success rate of the procedure, including anastomotic and non-anastomotic strictures, was 75%, and was higher in the anastomotic stricture group (81.25%) than in the non-anastomotic stricture group (50%).***