Embolization

Late limb embolization of biological glue after repair of aortic dissection.

Authors: Furukawa H, Masaki H, Tanemoto K

Publication Date: 2015

PMID: 25661075

Abstract:

Not Available

Full Text:

Not Available

Pre-operative intracranial meningioma embolization.

Authors: Ellis J.A., D'amico R., Sisti M.B., Bruce J.N., Mckhann G.M., Lavine S.D., Meyers P.M., Strozyk D.

Publication Date: 2011

PMID: 361562954

Abstract:

Pre-operative embolization is a routinely utilized therapeutic adjunct to the resection of hypervascular lesions of the head and neck. In particular, pre-operative cerebral angiography and tumor embolization has become standard practice at many centers in the management of select intracranial meningiomas. However, controversy remains regarding its specific indications and clinical utility. In this article, we examine the principles of meningioma embolization, emphasizing the indications, risks and benefits associated with its use in the pre-operative setting.

Full Text:

Not Available

[Thrombin embolization of a pseudoaneurysm of the arterial lingualis after blunt neck trauma]. [German]

Authors: Kaschner M, Strunk H

Publication Date: 2011

PMID: 21935863

Abstract:

Not Available

Full Text:

Not Available

[Experimental study of aneurysmal occlusion with fibrin glue]. [Japanese]

Authors: Suga T, Sugawara T, Yoshimoto T, Takahashi A, Kohshu K

Publication Date: 1992

PMID: 1508313

Abstract:

The authors report an experimental trial of intra-aneurysmal occlusion using fibrin glue. Nowadays, with the development of microsurgical techniques and aneurysmal clips, results of direct radical operations have been improving. But quite a few aneurysms cannot be clipped because of their size, location, broad neck etc. Some authors have treated these aneurysms with innovative techniques (detachable balloon techniques etc). In these methods, the occlusive state of the aneurysms is not always obtainable because of the size of their neck. Besides, it is not always possible to preserve the parent arteries of the aneurysms. Experimental aneurysms in cervical carotid arteries of dogs are treated by direct injection with fibrin glue. During its injection, influx of fibrin glue was prevented by occlusion of the aneurysmal orifices with inflated polyethylene angioplastic balloons. The aneurysms which were completely (100%) filled by the injection of fibrin glue (100% infused group) were totally obliterated in 10 (71%) of the 14 cases. The parent arteries were completely preserved in all instances. Follow-up study demonstrated satisfactory maintenance of this occluded state in the aneurysms in the 100% infused group. In completely occluded cases, all aneurysms maintained this state. On the other hand, 1 of the 4 incompletely obliterated aneurysms recanalized partially. These occluded aneurysms were studied by a light microscope (LM) and a scanning electron microscope (SEM). At day 7 after the occluding procedure, the margin of the aneurysmal orifice was covered by a layer of fibroblasts. At day 21, almost half of the aneurysmal cavity had been substituted with connective tissue. The orifice of the aneurysms was covered with an endothelial layer.(ABSTRACT TRUNCATED AT 250 WORDS)

Full Text:

Not Available

Embolization coils and fibrin glue closure of a gastric tube-lung fistula after esophagectomy - A case report. [Japanese]

Authors: Shouji M., Toyono M., Tamura M., Nishi K., Sotoda Y., Gotou S., Uchida T.

Publication Date: 2000

PMID: 30662778

Abstract:

We treated a 67-year-old man presenting with a gastric tube-lung fistula after anastomotic leakage, who had undergone thoracoscopic esophagectomy for thoracic esophageal cancer. The fistula was intractable for 8 months, but was successfully closed by endobronchoscopic application of fibrin glue after placement of embolization coils into the fistula. To our knowledge, no previous report describes the use of coils and fibrin glue in therapeutic intractable fistula closure.

Full Text:

Not Available

[Possible lung embolism following embolization of a hemangioma with fibrin glue]. [German]

Authors: Tonner PH, Scholz J

Publication Date: 1994

PMID: 7978188

Abstract:

More than 50% of all congenital haemangiomas are located on the head and neck. Because most orofacial haemangiomas exhibit the tendency to grow rapidly, they are often treated by embolisation and excision. CASE REPORT. The case of a 5-year-old patient is presented, who was admitted to the hospital for embolisation and immediate surgery of a haemangioma of the right side of the face and upper lip. After the injection of 2 ml fibrin glue she suddenly developed hypotension, tachycardia, a low oxygen saturation, and a low end-tidal carbon dioxide partial pressure. There was no failure of the breathing circuit and no airway obstruction could be found. Most likely these symptoms were due to transport of the fibrin glue from the haemangioma into pulmonary vessels. The therapy included the administration of heparin and antihypotensive drugs. After stabilisation, the patient was transferred to the intensive care unit for 1 day without further complications. CONCLUSION. Pulmonary embolism

after injection of fibrin glue into an orofacial haemangioma has not previously been reported, but it should be considered that systemic complications can occur after injecting substances for embolisation into vessel-rich tissues.

Full Text:

Not Available

Treatment of type I endoleak after endovascular repair of infrarenal abdominal aortic aneurysm: Success of fibrin glue sac embolization.

Authors: Lu Q., Feng J., Yang Y., Nie B., Bao J., Zhao Z., Feng X., Pei Y., Yuan L., Mei Z., Feng R., Jing Z.

Publication Date: 2010

PMID: 360155061

Abstract:

Purpose: To analyze a single-center experience of fibrin glue sac embolization to eliminate type I endoleaks after endovascular aneurysm repair (EVAR), assessing the feasibility and effectiveness of the technique in long-term follow-up. Methods: A retrospective study was conducted involving 783 EVAR patients treated between August 2002 and February 2009. Under a standardized protocol, 42 (5.4%) patients (37 men; mean age 73+/-8 years) underwent intraoperative transcatheter fibrin glue sac embolization to resolve type I endoleak persisting after initial intraoperative maneuvers to close the leak or in necks too short or angulated for cuff placement. Intrasac pressure was measured before and after glue injection. Computed tomographic angiography was performed to assess the outcome after 3, 6, and 12 months and annually thereafter. Results: In this type I endoleak cohort, 16 (38.1%) patients had proximal necks <10 mm long, and 5 (11.9%) patients had proximal neck angulation >60degree; 22 additional devices (8 stents, 14 cuffs) had been placed in the initial attempts to resolve the endoleaks.After fibrin glue injection, 41 (97.6%) of the 42 endoleakswere resolved using amean 15+/-10mLof glue. Intrasac pressure decreased significantly in successfully treated cases. The patient who failed embolotherapy was converted to open surgery (2.4%); he died 2 months later from multiorgan failure. Two (4.8%) patients died in the perioperative period frommyocardial infarction. One (2.4%) patient developed right lower extremity ischemia unrelated to the fibrin glue treatment. Therewere no allergic reactions.Over amedian follow-up of 39.9months (range 10-88), 3 (7.1%) patients died (1 aneurysm-related). Cumulative survival was 90.5% at 1 year, 87.0% at 3 years, and 82.6% at 5 years. The mean maximal aneurysm diameter fell from the baseline 59.5+/-14.7 mm to 49.0+/-11.6 mm (p<0.001). Of the 4 patients with increased aneurysm diameter during follow-up, 1 was converted, 2 are being observed due to advanced age, and 1 died of renal failure. No recurrent type I endoleak or glue-related complications were observed in follow-up. Conclusion: Fibrin glue sac embolization to eliminate type I endoleak after EVAR yielded excellent results in our experience, effectively and durably resolving the leaks. Balloon occlusion of the proximal aorta must be done during glue injection to block proximal flow and facilitate formation of a structured fibrin clot.

Full Text:

Not Available

Outcomes of endovascular aneurysm repair with contemporary volume-dependent sac embolization in patients at risk for type II endoleak.

Authors: Piazza M, Squizzato F, Zavatta M, Menegolo M, Ricotta JJ 2nd, Lepidi S, Grego F, Antonello M

Publication Date: 2016

PMID: 26432285

Abstract:

OBJECTIVE: The aim of this study was to evaluate outcomes of intraoperative aneurysm sac embolization during endovascular aneurysm repair (EVAR) in patients considered at risk for type II endoleak (EII), using a sac volume-dependent dose of fibrin glue and coils. METHODS: Between January 2012 and December 2014, 126 patients underwent EVAR. Based on preoperative computed tomography evaluation of anatomic criteria, 107 patients (85%) were defined as at risk for EII and assigned to randomization for standard EVAR (group A; n = 55, 44%) or EVAR with intraoperative sac embolization (group B; n = 52, 42%); the remaining 19 patients (15%) were defined as at low risk for EII and excluded from the randomization (group C). Computed tomography scans were evaluated with OsiriX Pro 4.0 software to obtain aneurysm sac volume. Freedom from EII, freedom from EII-related reintervention, and aneurysm sac volume shrinkage at 6, 12, and 24 months were compared by Kaplan-Meier estimates. Patients in group C underwent the same follow-up protocol as groups A and B. RESULTS: Patient characteristics, Society for Vascular Surgery comorbidity scores (0.99 +/- 0.50 vs 0.95 +/- 0.55; P = .70), and operative time (149 +/- 50 minutes vs 157 +/- 39 minutes; P = .63) were similar for groups A and B. Freedom from EII was significantly lower for group A compared with group B at 3 months (58% vs 80%; P = .002), 6 months (68% vs 85%; P = .04), and 12 months (70% vs 87%; P = .04) but not statistically significant at 24 months (85% vs 87%; P = .57). Freedom from EII-related reintervention at 24 months was significantly lower for group A compared with group B (82% vs 96%; P = .04). Patients in group B showed a significantly overall mean difference in aneurysm sac volume shrinkage compared with group A at 6 months (-11 +/- 17 cm(3) vs -2 +/- 14 cm(3); P < .01), 12 months (-18 +/- 26 cm(3) vs -3 +/- 32 cm(3); P = .02), and 24 months (-27 +/- 25 cm(3) vs -5 +/- 26 cm(3); P < .01). Patients in group C had the lowest EII rate compared with groups A and B (6 months, 5%; 12 months, 6%; 24 months, 0%) and no EII-related reintervention. CONCLUSIONS: This randomized study confirms that sac embolization during EVAR, using a sac volume-dependent dose of fibrin glue and coils, is a valid method to significantly reduce EII and its complications during early and midterm follow-up in patients considered at risk. Although further confirmatory studies are needed, the faster aneurysm sac volume shrinkage over time in patients who underwent embolization compared with standard EVAR may be a positive aspect influencing the lower EII rate also during long-term follow-up.

Full Text:

Not Available

Intraoperative intrasac thrombin injection to prevent type II endoleak after endovascular abdominal aortic aneurysm repair.

Authors: Zanchetta M, Faresin F, Pedon L, Ronsivalle S

Publication Date: 2007

PMID: 17484533

Abstract:

PURPOSE: To report a prospective, nonrandomized pilot study to determine whether fibrin glue aneurysm sac embolization at the time of endovascular aneurysm repair (EVAR) is a safe and effective procedure to primarily prevent type II endoleaks. METHODS: Between June 2003 and December 2005, 84 consecutive patients (79 men; mean age 73.8+/-7.8 years, range 64-86) with degenerative infrarenal abdominal aortic aneurysm underwent EVAR with bifurcated stent-grafts and fibrin glue injection into the aneurysm sac at the conclusion of the endovascular procedure. A total of 424 imaging studies and 348 visits were recorded during the study period and reviewed. RESULTS: Selective catheterization of the aneurysm sac and fibrin glue injection immediately after initial stent-graft deployment was successful in 83 (99%) of 84 cases; there was one failure to access the excluded aneurysm sac due to severe iliac artery calcification. The estimated primary and assisted clinical success rates at 2 years were 91.3% and 98.8%, respectively, but the major findings were the low rate of delayed type II endoleak (2.4%) and the statistically significant decrease in the maximum transverse aneurysm diameter (50.40+/-6.70 versus 42.03+/-6.50 mm, p = 0.0001) at follow-up. In addition, of 31 patients available for 24-month follow-up, 14 (45.2%) patients showed a reduction in maximum transverse aneurysm diameter by >or=5 mm; 16 (51.6%) patients had no significant changes, whereas only 1 patient showed a >5-mm enlargement. CONCLUSION: This clot engineering approach to aneurysm sac embolization at the time of endografting appears to be safe and may spare the patient a repeated catheter-based intervention or surgical procedure.

Full Text:

Not Available

Type II endoleak: from treatment of a complication to prevention.

Authors: Ronsivalle S, Faresin F, Franz F, Rettore C, Zanchetta M, Olivieri A

Publication Date: 2012

PMID: 22313214

Abstract:

Not Available

Full Text:

Not Available

Commentary: reduction of type II endoleak using embolization of the aneurysm sac during EVAR.

Authors: Jonker FH, Aruny J, Moll FL, Muhs BE

Publication Date: 2010

PMID: 20681770

Abstract:

Not Available

Full Text:

Not Available

Aneurysm sac "thrombization" and stabilization in EVAR: a technique to reduce the risk of type II endoleak.

Authors: Ronsivalle S, Faresin F, Franz F, Rettore C, Zanchetta M, Olivieri A

Publication Date: 2010

PMID: 20681769

Abstract:

PURPOSE: To evaluate the reduction in type II endoleak risk after introducing a new prevention method, "thrombization" or clotting of the aneurysm sac, during endovascular aneurysm repair (EVAR) versus the standard EVAR technique. METHODS: From September 1999 to December 2008, 469 consecutive patients underwent EVAR for AAA at our institution. In 2003, the injection of fibrin glue with or without microcoils into the aneurysm sac was added to the EVAR treatment plan ("thrombization" technique). Patients who did not meet the inclusion criterion (at least 1-year follow-up imaging) were censored at the end of 2007, leaving 404 patients eligible for the study: 224 patients (210 men; mean

age 71.9+/-8.5 years, range 25-88) undergoing EVAR alone from September 1999 to May 2003 (group 1) compared to 180 patients (161 men; mean age 72.6+/-8 years, range 46-89) who underwent EVAR + thrombization from June 2003 to December 2006 (group 2). RESULTS: The 2 treatment groups were similar with regard to aneurysm morphology. No allergic or anaphylactic reactions were encountered related to the fibrin glue. Over median follow-up times of 72 months in group 1 and 26 months in group 2, there were 34 (15.2%) endoleaks in group 1 versus 4 (2.2%) in group 2 ($p<0.0001$). The incidence of type II endoleak was 0.25/100 person-months for group 1 versus 0.07/100 person-months for group 2. The preventive sac thrombization technique was significantly associated with a reduced risk of type II endoleak (HR 0.13, 95% CI 0.05 to 0.36; $p<0.0001$) regardless of the type of stent-graft fixation (infrarenal versus suprarenal). CONCLUSION: The preventive method of intrasac "thrombization" using fibrin glue injection with or without the insertion of coils proves to be a simple, low cost, safe, and effective technique to significantly reduce the risk of type II endoleaks irrespective of the endograft used.

Full Text:

Not Available

Intrasac fibrin glue injection after platinum coils placement: the efficacy of a simple intraoperative procedure in preventing type II endoleak after endovascular aneurysm repair.

Authors: Pilon F, Tosato F, Danieli D, Campanile F, Zaramella M, Milite D

Publication Date: 2010

PMID: 20378698

Abstract:

OBJECTIVES: To verify in our experience if fibrin glue injection into the aneurysm sac, made at the end of endovascular aneurysm repair (EVAR), can reduce type II endoleak rates. METHODS: Between January 2005 and February 2008, 38 patients underwent EVAR for an unruptured abdominal aortic aneurysm. The first 20 consecutive patients (Group A) had standard EVAR while the last 18 patients (Group B) had EVAR with fibrin glue injection into the sac, regardless of type II endoleak's presence. RESULTS: There was no statistically significant difference between the two groups concerning the surgical time and the time of X-ray exposure (P=0.30 and 0.54, respectively). Type II endoleak rate was significantly higher in Group A compared to Group B (6 cases, 30% vs. 1 case, 5.5%, respectively, P=0.05). Primary short-term clinical success was 95% and 100%, respectively. At 12 months, selective lumbar embolization was performed in two patients in Group A and in one patient in Group B. Patients in Group A had less computed tomography (CT) studies than patients in Group B (2.0 vs. 1.2, respectively, P=0.024). CONCLUSIONS: Fibrin glue injection is a safe procedure and seems to reduce type II endoleak rates. Patients who received this procedure had fewer CT examinations, with reduced health-care costs.

Full Text:

Not Available

Utility of micro-coils and glue in coronary artery perforation during balloon angioplasty.

Authors: Lanjewar C, Ephrem B, Kerkar PG

Publication Date: 2007

PMID: 19122256

Abstract:

Not Available

Full Text:

Not Available

Fibrin sealant as a plug for the post liver biopsy needle track.

Authors: Chisholm RA, Jones SN, Lees WR

Publication Date: 1989

PMID: 2598591

Abstract:

Some patients are at particular risk of haemorrhage after liver biopsy. We describe the use of a two-component fibrin sealant (Tisseel, Immuno) for embolising the track left after biopsy with the 18 gauge 'Biopty' needle. In our series of five cases there have been no bleeding complications. We consider Tisseel much easier to apply than previously described embolisation materials.

Full Text:

Not Available

Intraoperative Intratumoral Embolization of a Complex Recurrent Hemangiopericytoma: Technical

Report and Review of the Literature.

Authors: Ryttlefors M., Latini F., Basma J., Krisht A.F.

Publication Date: 2015

PMID: 605677656

Abstract:

Objective Recurrent brain tumors represent a challenge for neurosurgeons because of the extensive blood loss and the time needed for surgical resection. Only a few hemostatic agents are useful to prevent the bleeding and thus facilitate the surgical resection. Fibrin sealant can be used to achieve sealing, tissue adherence, or hemostasis when other means of hemostasis are inadequate or inappropriate. We report the feasibility and positive effects of direct intratumoral injection of fibrin sealant during resection of a recurrent hemangiopericytoma. Material and Methods The intraoperative intratumoral injection of fibrin sealant changed the tumor properties of a recurrent hemangiopericytoma of the tentorium with infra- and supratentorial extension. From a loose friable briskly bleeding tumor, this complex lesion became a nonbleeding well-demarcated soft-firm tumor that could easily be dissected off the pial surface and totally resected without extensive bleeding. Results There are several benefits of intratumoral injection of fibrin sealant in hemangiopericytomas: (1) the extensive bleeding is diminished and blood loss minimized; (2) the restriction of the surgical view by the venous oozing is diminished, making the microsurgical dissection of the tumor capsule off the pial surface easier and safer; (3) the loose consistency of the tumor becomes firmer and facilitates the manipulation of the tumor and leads to a safer resection; and (4) a shorter operating time is needed. Conclusion The use of intratumoral fibrin glue injection is a safe and useful technique that could be used for hemostasis of highly vascularized tumors to facilitate a safer resection and to reduce blood loss.

Full Text:

Not Available

Limitation of portal vein embolization for extension of hepatectomy indication in patients with hepatocellular carcinoma.

Authors: Hirohashi K., Tanaka H., Tsukamoto T., Kubo S., Shuto T., Takemura S., Yamamoto T., Kanazawa A., Ogawa M., Osugi H., Kinoshita H.

Publication Date: 2004

PMID: 38822475

Abstract:

Background/Aims: Although percutaneous transhepatic portal vein embolization (PTPE) expands the candidate pool for hepatectomy in patients with hepatobiliary malignancies, the role of PTPE in patients with active hepatitis or cirrhosis has yet to be determined. Methodology: Records of patients who underwent PTPE of the right portal vein between 1984 and April 2001 were reviewed retrospectively. To determine the indication for PTPE and subsequent hepatectomy, clinical variables, including serum concentrations of hyaluronic acid (HA), procollagen type III peptide (P-III-P), and the 7S domain of type IV collagen (7S-IV), were compared between patients who underwent right hepatectomy (group A; n=44) and the other patients (group B; n=17). Results: The scores for prediction of postoperative liver failure (prediction score) and serum HA and P-III-P concentrations were different in the two groups. Thirteen of 30 patients (43%) whose prediction score was more than 50, the limit of the hepatectomy without PTPE, successfully underwent right hepatectomy following PTPE. The resectability ratios increased to 75% and 100%, when the HA concentration was <=100mg/L and the P-III-P concentration <=0.7/mL. Conclusions: Serum HA and P-III-P concentrations are useful guidelines for identifying candidates for right hepatectomy following PTPE.

Full Text:

Not Available

[Fibrin adhesives in the treatment of oral hemangioma]. [German]

Authors: Honig JF, Merten HA, Halling F

Publication Date: 1991

PMID: 1817782

Abstract:

Selective embolization using the fast-setting phase of a fibrin adhesive is an improvement in the range of therapeutic options for oral hemangioma. Direct injection of TISSUCOL permits a safe, selective and tissue-sparing operative procedure involving little bleeding and resulting in the complete extirpation of a hemangioma with all the residues.

Full Text:

Not Available