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외과학 석사 학위논문

자발적 복강동맥 박리에서 스텐트
삽입술의 장기 효과

2019 년 2 월

서울대학교 의과대학원

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강소현

Abstract

Long-term outcomes of endovascular stenting in management of symptomatic spontaneous isolated celiac artery dissection (SICAD)

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Introduction: Spontaneous isolated celiac artery dissection (SICAD) is a rare disease with little reports on management strategies. We report the long-term outcomes of conservative management and endovascular intervention for treatment of SICAD.

Methods: Sixteen patients presenting with SICAD from September 2006 to October 2018 were retrospectively reviewed. The clinical manifestations, initial radiologic findings, methods of treatment and serial follow-up studies were analyzed.

Results: Mean age was 51.2 ± 7.9 years with a median follow-up of 33.3 (range 1.0 – 118.9) months. Among the 16 patients, 4 received early intervention due to aneurysmal dilatation or distal hypoperfusion. Four of the 12 patients who received conservative management showed progression of disease, and were recommended for delayed intervention. Although collaterals prevented further hepatic ischemia, one of the four failed in delayed intervention due to extensive thrombi completely occluding the hepatic artery. In the remaining 8 patients that were managed conservatively, three (37.5%) showed regression of disease, one (12.5%) showed partial

regression, and five (62.5%) showed no change in intimal flap or thrombosis, but all had improvement of symptoms. The median follow-up duration for the 7 patients who underwent successful intervention was 77.3 (range 34 – 119) months, and all stents were patent during this period.

Conclusion: Long-term patency of celiac artery stents show good results. Early intervention in SICAD is recommended if there are any complicated features that can lead to disease progression, because a delay can lead to development of an unfavorable anatomy for subsequent intervention.

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keywords : celiac artery, blood vessel dissection,
endovascular procedures, stents

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Introduction:

Spontaneous isolated celiac artery dissection (SICAD), defined as a dissection in the celiac artery without the involvement of the aorta, is a rare disease. Although most are diagnosed when the patient presents with symptoms such as abdominal pain, it can also be found incidentally through computed tomography (CT) scans or angiography^{1,2}. From 1987 to 2017, only 217 cases have been reported in the literature³⁻⁶, and most of them are through case reports or series. The patients are predominantly middle-aged male complaining of abdominal pain⁶. Some of the presumed risk factors include hypertension, atherosclerotic disease, fibromuscular dysplasia, cystic medial necrosis, trauma, pregnancy, and connective tissue disorders^{7,8}. There has been a rise in the diagnosis of SICAD in recent years, which is associated with increased use of CT imaging for evaluation of abdominal pain^{9,10}.

Nevertheless, there is no consensus for the treatment of this rare disease, yet most reports suggest conservative management with or without antiplatelet medications if it does not have complex features such as aneurysmal dilatation or end organ ischemia^{3,5,11}. In contrast, when a patient presents with complex features, there is still a debate regarding surgical or endovascular intervention, but several reports have shown short-term feasibility of endovascular stenting for SICAD^{4,12-14}. Unfortunately, there are still no long-term reports of patients treated with either conservative or endovascular management. In this report, the long-term feasibility of endovascular stents as a possible option for treatment, as well as

conservative management using antiplatelet or anticoagulation medication, will be discussed.

Methods:

Study design

A retrospective review of 16 patients diagnosed with symptomatic SICAD from September 2010 to October 2018 was performed. Charts were reviewed for age, gender, previous medical history, blood pressure, initial symptoms, labs, initial CT findings, and follow-up treatment. Formal consent was waived due to the retrospective nature of the study, and approval was obtained from the institutional research committee of our institution.

Computed tomography (CT) imaging

CT scans with contrast enhancement were performed in all patients for initial diagnosis and follow-up. CT findings such as the presence of intimal flap, thrombosis of the false lumen, aneurysmal dilatation, and distal organ ischemia were noted. Aneurysmal dilatation was defined as an increase in diameter of more than 50% of the normal caliber of the celiac artery¹⁵. Morphologic type was defined as either Type I – patent false lumen without thrombus, Type II – partial false lumen thrombosis, or Type III – complete false lumen thrombosis¹⁶.

Endovascular intervention

Indications for immediate intervention were distal hypoperfusion with

consequent organ ischemia, aneurysmal dilatation, and progression of disease despite conservative treatment. Endovascular intervention was performed through the right common femoral artery approach (except one patient who had brachial approach), and self-expandable stents were placed. These stents were sized to the normal diameter of the proximal artery, and were placed near the orifice of the celiac artery with coverage of the entry site after identification of the true lumen. The patients continued antiplatelet therapy for 3 – 6 months.

Conservative management

Conservative treatment consisted of hypertension management, fasting, and short-term follow-up CT scans after 3 – 7 days. If there were signs of symptom relief, the patient was discharged with oral antiplatelet or anticoagulation as necessary according to the presence of thrombosis. The treatment algorithm is illustrated in Figure 1.

Follow-up schedule

Patients treated conservatively were followed after 2 weeks. Then, according to their symptoms, they underwent a CT scan 3 – 6 months later. If the disease was stable or showed regression, then they were scheduled for a CT scan 1 – 2 years after. The criterion for termination of follow-up was complete regression of the dissection, while asymptomatic stable disease was followed every 1 – 2 years. Patients with endovascular stents were followed up 1 week after discharge. Then, according to their results, they were followed at 6 – 12 months' interval. Follow-up consisted of CT scans, basic

laboratory tests including liver function and renal function tests, and physical examination of the patient. The follow-up CT scans of the patients were reviewed, and were classified as complete regression, partial regression, no change, and progression of disease.

Endpoints and statistical analysis

Endpoints were the regression of symptoms and progression of disease. For patients that underwent intravascular stents, stent patency was also noted. Since there was no comparison, descriptive analysis was done using SPSS software (version 22.0, SPSS Inc, Chicago, USA).

Results:

The mean age was 51.2 ± 7.9 with 14 (87.5%) male patients. Four (25.0%) had hypertension, two (12.5%) had a history of stroke, and one (6.3%) had diabetes. Three patients (18.7%) were smokers at the time of diagnosis. None of the patients were associated with connective tissue disorders. All patients presented with abdominal pain, with the majority complaining of epigastric pain (n = 9, 56.3%). Morphologic type was mostly Type III with 13 (81.3%) patients having complete thrombotic occlusion of the false lumen. Mean length of the dissection was 4.7 ± 1.6 cm, and aneurysmal change was noted in 5 (31.3%) patients. There was distal hypoperfusion in 9 (56.3%) patients, and 2 (12.5%) had a simultaneous SMA dissection at the time of diagnosis. The demographics of the patients are shown in Table 1, and the characteristics of the disease are shown in Table 2.

Among the 16 patients that were enrolled (Table 3), 8 patients were managed conservatively. Four patients underwent immediate intervention (Figure 2), and three underwent intervention after the CT findings showed a progression of disease (Figure 3). One patient who initially underwent conservative management showed progression of disease and was recommended for endovascular stent placement (Figure 4). The patient initially refused intervention, but after 2 months, the patient returned agreeing to the procedure. The procedure, however, failed due to development of an unfavorable anatomy for stent placement – the common hepatic artery was completely occluded, and the liver, spleen, and stomach were all receiving supplies from the collaterals of the superior mesenteric artery (SMA). Stent placement would probably compromise these collaterals, and considering that the risk of aneurysmal rupture was low as shown by the small (<2.0 cm) size and thickened adventitia, it was decided not to proceed with further intervention.

Ten patients first presented with severe pain (NRS 6 or more). Seven of them were treated with endovascular intervention while the other three had symptom relief after conservative management. The other 6 patients who presented with mild to moderate pain (NRS 5 or lower), were controlled with conservative management.

Four patients used the Cordis SMART Control (Cordis Corporation, Warren, NJ, USA), two used the Zilver 635 Vascular Self-Expanding Stent (Cook

Medical, Bloomington, IN, USA), and one used the Xpert stent (Abbott Vascular, Inc., Redwood City, CA, USA) for endovascular intervention.

In follow-up CT scans, complete regression of the intimal flap and thrombosis occurred in five (71.4%) patients who received endovascular intervention, and three (37.5%) patients who received conservative care also showed complete healing of the dissection flap. Partial regression occurred in two (28.6%) patients in the intervention group, and in one (12.5%) patient in the conservative group. Five (62.5%) patients in the conservative group had no change of disease extent on imaging follow-up.

Total median follow-up was 33.3 (1.0 – 118.9) months, and all patients showed symptomatic relief in their last follow-up. For patients with endovascular stents, the median follow-up was 77.3 (34.3 – 118.9) months, and all stents were patent in their last follow-up CT scan.

Discussion:

This study described the long-term results of both endovascular and conservative treatment of symptomatic spontaneous isolated celiac artery dissection. Among the sixteen patients, nearly half of them underwent endovascular stenting, and showed successful intervention with all stents remaining patent during a median follow-up of 77 months.

Symptomatic SICAD patients often complain of abdominal pain, and most reports show a middle-aged male dominance^{4,6,17}. Others may present with

weight loss, obstructive jaundice, intestinal angina, and even arterial rupture¹⁸. Kim et al.¹¹ mentioned in their study of conservative treatment of SICAD that they would have performed immediate endovascular intervention if the patient had persistent severe pain, but none in their cohort showed such symptoms. All the patients who underwent intervention in the present study had severe pain that substantially hindered daily activities. However, since this is a retrospective study, the intensity of pain is difficult to quantify into a precise scale.

The etiology behind SICAD is unknown. A systematic review by Cavalvante et al. showed that hypertension (31%) and smoking (23%) were frequently observed, and this number is comparable to the current study. There are also case reports that show SICAD from blunt trauma or heavy weight lifting¹⁹⁻²¹. These exercises cause high blood pressure as high as 480/350 mmHg at a brief point in time²². Three of the patients in this study also complained of abdominal pain after a sports activity, two of them complaining of sharp severe pain immediately after swimming. A speculation is that a sudden increase in abdominal pressure through sharp heavy intake of breath, added to the mechanical stress and high blood pressure during activity, may cause an abrupt injury to the intimal wall of the visceral arteries. Therefore, it may be possible to advise a patient with SICAD to avoid stressful exercises to the abdomen, and to strictly control their blood pressures. However, the rarity of the disease still makes its etiology unclear.

Despite the lack of consensus regarding the best treatment approach, most of

the reported literature discusses the safety of conservative treatment in SICAD as a first-line approach in selected patients^{11,23-24}. Conservative treatments also vary according to the different studies. Ichiba et al.³ proposed a medical treatment of only antihypertensive and analgesic drugs without antiplatelet or anticoagulation. Thirteen patients, with eleven having thrombosis in their false lumen, underwent this approach, and all have been reported to survived after a median follow-up of 376 (165-602) days. However, most studies still use a combination of antihypertensive and antithrombotic therapy for conservative care, and through this treatment, Kim et al.¹¹ reported a follow-up of 28 patients for 2 years without adverse clinical events. In this study, all patients who underwent conservative management were given antithrombotic therapy. Most of the patients had thrombosed false lumen, and additional risk of false lumen thrombosis was present in Type I patients. Termination of antithrombotic therapy depended mainly on patient symptoms. If patient symptoms resolved with regression of disease on CT scan, antithrombotic therapy was stopped and patients were followed-up. Once the disease entered a regression phase, none of the patients experienced relapse of the disease. No patient had adverse effects related to antithrombotic therapy, showing that short-term antithrombotic therapy is safe and feasible.

Patient selection and timing of surgical or endovascular intervention is crucial in the management of SICAD. Galastri et al.¹⁸ suggested that immediate surgical or endovascular treatment is required in the presence of bowel necrosis or aneurysmal rupture. In the elective setting, refractory

abdominal pain, celiac trunk aneurysm ≥ 2 cm, compression of the true lumen, and suspected bowel ischemia were suggested as possible criteria for endovascular treatment. In this study, our criterion for endovascular treatment was broader, by including all patients with aneurysmal dilatation (1.5 times the normal diameter) to undergo intervention. If symptoms did not improve in the short-term, intervention was also performed. Early intervention in patients with persistent pain may be feasible since a delay can lead to development of an unfavorable anatomy for celiac artery stenting, as shown in this study. All patients with endovascular stents maintained a good mid to long-term patency, and stenting allowed for faster regression of the arterial dissection as seen in follow-up imaging scans.

The most noticeable limitation of this study is the small number of cases, which is due to the rarity of the disease. With larger numbers, more statistical analyses may be performed, and the risk factors for the disease may be evaluated, including risk factors related to disease progression after conservative medical treatment. There is a difference in the median follow-up of patients managed by intervention and conservative treatment. Hence, it is difficult to make a conclusive comparison of the results between the two groups. Lastly, it is a retrospective study, but due to the uncommonness of SICAD patients, a prospective study may not be plausible.

Despite these limitations, this study is the first to evaluate the long-term feasibility of endovascular intervention in SICAD, with a median follow-up period of 77.3 months. Since there is no definite consensus for treatment,

this study may provide evidence for more liberal use of endovascular stents in SICAD. Also, this study included only symptomatic patients, which allows for focusing on disease progression and treatment, as compared to studies that included non-symptomatic or incidental celiac artery dissections. Finally, although SICAD may be managed conservatively, there have been reports of rupture of the splenic artery²⁵ and aneurysm rupture with intra-abdominal hematoma²⁶, suggesting that not all cases are benign, and a strategy of prompt vascular intervention in selected cases may be feasible to prevent complications.

Conclusion:

Endovascular stenting for symptomatic spontaneous isolated celiac artery dissection is safe and feasible with good long-term patency. Early intervention in SICAD is recommended if pain persists despite short-term conservative management or there are any complicated features that predispose to disease progression, since a delay in intervention can lead to development of unfavorable anatomies for subsequent intervention.

References:

- 1 Tanaka Y, Yoshimuta T, Kimura K, Iino K, Tamura Y, Sakata K, et al. Clinical characteristics of spontaneous isolated visceral artery dissection. *Journal of Vascular Surgery* 2018;**67**(4):1127–33.
- 2 Takayama T, Miyata T, Shirakawa M, Nagawa H. Isolated spontaneous

- dissection of the splanchnic arteries. *Journal of Vascular Surgery* 2008;**48**(2):329–33.
- 3 Ichiba T, Hara M, Yunoki K, Urashima M, Naitou H. Impact of Noninvasive Conservative Medical Treatment for Symptomatic Isolated Celiac Artery Dissection. *Circ J* 2016;**80**(6):1445–51.
 - 4 Sun J, Li D-L, Wu Z-H, He Y-Y, Zhu Q-Q, Zhang H-K. Morphologic findings and management strategy of spontaneous isolated dissection of the celiac artery. *Journal of Vascular Surgery* 2016;**64**(2):389–94.
 - 5 Hosaka A, Nemoto M, Miyata T. Outcomes of conservative management of spontaneous celiac artery dissection. *Journal of Vascular Surgery* 2017;**65**(3):760–1.
 - 6 Cavalcante RN, Motta-Leal-Filho JM, De Fina B, Galastri FL, Affonso BB, de Amorim JE, et al. Systematic Literature Review on Evaluation and Management of Isolated Spontaneous Celiac Trunk Dissection. *Annals of Vascular Surgery* 2016;**34**(C):274–9.
 - 7 Batsis JA, Arora AS. Celiac Artery Dissection: An Uncommon Cause of Abdominal Pain and Weight Loss. *Clinical Gastroenterology and Hepatology* 2005;**3**:1–1.
 - 8 Woolard JD, Ammar AD. Spontaneous dissection of the celiac artery: A case report. *Journal of Vascular Surgery* 2007;**45**(6):1256–8.
 - 9 Verde F, Bleich KB, Oshmyansky A, Black JH, Fishman EK, Johnson PT. Isolated Celiac and Superior Mesenteric Artery Dissection Identified With MDCT: Imaging Findings and Clinical Course. *J Comput Assist Tomogr* 2012;**36**(5):539–45.
 - 10 Fenoglio L, Allione A, Scalabrino E, Alberto G, Benedetti V, Pomero

- F, et al. Spontaneous Dissection of the Celiac Artery: A Pitfall in the Diagnosis of Acute Abdominal Pain. Presentation of Two Cases. *Digestive Diseases and Sciences* 2004;**49**:1223–7.
- 11 Kim SR, Park TK, Choi S-H, Kim SM, Choe YH, Heo S-H, et al. Natural history of spontaneous isolated celiac artery dissection after conservative treatment. *Journal of Vascular Surgery* 2018;**68**(1):55–63.
 - 12 Basile A, Tsetis D, Montineri A, Coppolino F, Patti MT, Fatuzzo F. Self-expanding Stent Placement as a Bridge for Safe Hepatic Chemoembolization in a Patient with Isolated Spontaneous Dissection of the Celiac Artery. *Jvir* 2009;**20**(3):425–6.
 - 13 Kato K, Yagami T, Sasazawa S, Tanimura K, Honda M, Sasakura Y, et al. Spontaneous Dissection of the Celiac and Hepatic Arteries Treated with Endovascular Treatment Modalities, Including Stent Placement and Transcatheter Arterial Embolization. *Interventional Radiology* 2018:1–4.
 - 14 Takach TJ, Madjarov JM, Holleman JH, Robicsek F, Roush TS. Spontaneous splanchnic dissection: Application and timing of therapeutic options. *Journal of Vascular Surgery* 2009;**50**(3):557–63.
 - 15 Min SI, Yoon KC, Min SK, Ahn SH, Jae HJ, Chung JW, et al. Current strategy for the treatment of symptomatic spontaneous isolated dissection of superior mesenteric artery. *Journal of Vascular Surgery* 2011;**54**(2):461–6.
 - 16 Tsai TT, Evangelista A, Nienaber CA, Myrmel T, Meinhardt G, Cooper JV, et al. Partial Thrombosis of the False Lumen in Patients with Acute Type B Aortic Dissection. *N Engl J Med* 2007;**357**(4):349–

- 59.
- 17 Oh S, Cho Y-P, Kim J-H, Shin S, Kwon T-W, Ko G-Y. Symptomatic spontaneous celiac artery dissection treated by conservative management: serial imaging findings. *Abdom Imaging* 2010;**36**(1):79–82.
 - 18 Galastri FL, Cavalcante RN, Motta-Leal-Filho JM, De Fina B, Affonso BB, de Amorim JE, et al. Evaluation and management of symptomatic isolated spontaneous celiac trunk dissection. *Vasc Med* 2015;**20**(4):358–63.
 - 19 Riles TS, Lin JC. Celiac artery dissection from heavy weight lifting. *Journal of Vascular Surgery* 2011;**53**(6):1714–5.
 - 20 Kirchhoff C, Stegmaier J, Krotz M, Muetzel Rauch E, Mutschler W, Kanz K-G, et al. Celiac dissection after blunt abdominal trauma complicated by acute hepatic failure: Case report and review of literature. *Journal of Vascular Surgery* 2007;**46**(3):576–80.
 - 21 Gorra A, Mittleider D, Clark D, Gibbs M. Asymptomatic Isolated Celiac Artery Dissection After a Fall. *Arch Surg* 2009:279–281k.
 - 22 MacDougall JD, Tuxen D, Sale DG, Moroz JR, Sutton JR. Arterial blood pressure response to heavy resistance exercise. *Journal of Applied Physiology* 1985;**58**(3):785–90.
 - 23 Amabile P, OuaIssi M, Cohen S, Piquet P. Conservative Treatment of Spontaneous and Isolated Dissection of Mesenteric Arteries. *Annals of Vascular Surgery* 2009;**23**(6):738–44.
 - 24 Poylin V, Hile C, Campbell D. Medical Management of Spontaneous Celiac Artery Dissection: Case Report and Literature Review. *Vasc Endovascular Surg* 2008;**42**(1):62–4.

- 25 Nordanstig J, Gerdes H, Kocys E. Spontaneous Isolated Dissection of the Celiac Trunk with Rupture of the Proximal Splenic Artery: A Case Report. *European Journal of Vascular & Endovascular Surgery* 2009;**37**(2):194–7.
- 26 Kang UR, Kim YH, Lee Y-H. Endovascular Stent Graft for Treatment of Complicated Spontaneous Dissection of Celiac Artery: Report of Two Cases. *Korean J Radiol* 2013;**14**(3):460–5.

Tables

Table 1. Patient demographics (N=16)

Age (years)	51.7 ± 7.9
Sex (M:F)	14 : 2
Underlying disease	
Hypertension	4 (25.0%)
History of stroke	2 (12.5%)
Diabetes Mellitus	1 (6.5%)
Coronary artery disease	0 (0.0%)
Vasculitis	0 (0.0%)
Smoking	3 (18.7%)
Symptoms	
Epigastric pain	9 (56.3%)
Flank pain	4 (25.0%)
Whole abdomen pain	3 (18.7%)

Table 2. Imaging findings of the disease (N = 16)

Extent	
Celiac trunk	2 (12.5%)
1 st branch *	11 (68.8%)
2 nd branch **	3 (18.7%)
Simultaneous SMA dissection	2 (12.5%)
Mean length (cm)	4.7 ± 1.6
Intimal flap	12 (75.0%)
Aneurysm	5 (31.3%)
Distal hypoperfusion	9 (56.3%)
Type of false lumen	
I	3 (18.7%)
II	0 (0.0%)
III	13 (81.3%)

* dissection until the first branch = common hepatic artery, splenic artery,
or left gastric artery

** dissection until the second branch = proper hepatic artery

Table 3. Results of treatment (N = 16)

Intervention	
Immediate intervention	4 (25.0%)
Delayed intervention	3 (18.7%)
(progression)	
Failed intervention	1 (6.3%)
Conservative care	8 (50.0%)

Complete regression	
After intervention	5 (71.4%)*
After conservative care	3 (37.5%)†
Partial regression	
After intervention	2 (28.6%)*
After conservative care	1 (12.5%)†
No change	
After intervention	0 (0.0%)*
After conservative care	5 (62.5%)†

Median follow-up period (months)

Overall	33.3 (1.0-118.9)
Stent	77.3 (34.3-118.9)

* number of patients among the successful intervention group (n=7)

† number of patients among those who received conservative care only (n=8)

Figures

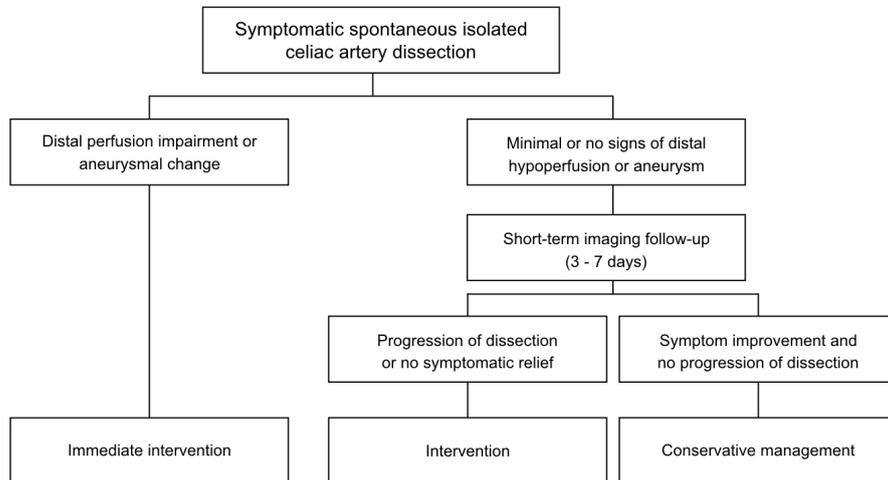


Figure 1. Treatment algorithm.

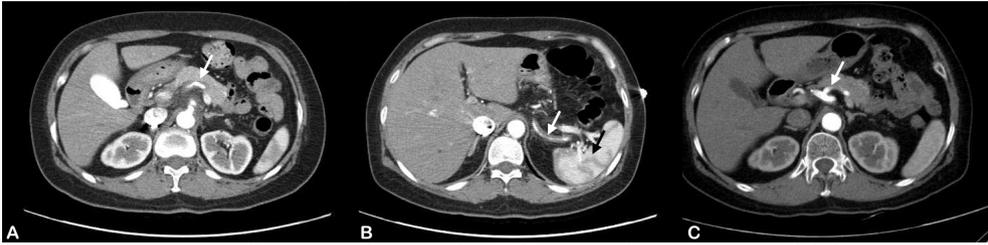


Figure 2. Immediate endovascular intervention. **A)** Initial computed tomography (CT) scans showing celiac artery dissection extending to the splenic artery (arrow). **B)** Long dissection covering most of the splenic artery (arrow) with spleen hypoperfusion. **C)** CT scan 36 months after stent insertion showing near complete regression of the intimal flap.



Figure 3. Delayed endovascular intervention. **A)** Initial computed tomography (CT) scans revealing celiac artery dissection with splenic and common hepatic arteries involved (arrow). **B)** Disease progression after 5 days with near complete obstruction of the splenic artery and thrombus in the proper hepatic artery. **C)** CT scans immediately after intervention show improved flow in both the splenic and the hepatic arteries.

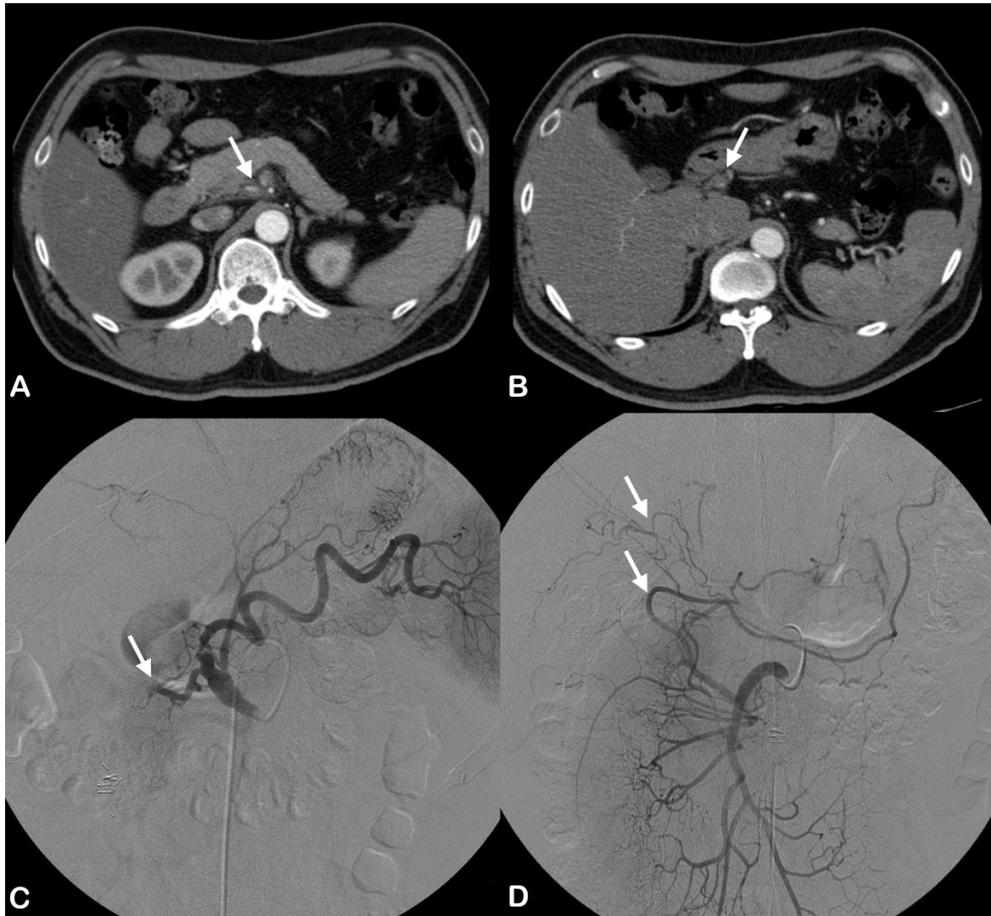


Figure 4. Failed delayed intervention after progression of disease. **A)** Initial computed tomography (CT) scans show celiac artery dissection involving the common hepatic and splenic arteries (arrow). **B)** Follow-up CT scans after 6 days reveal more sluggish flow to the proper hepatic artery (arrow) with persisting abdominal pain. **C)** Near total occlusion of the hepatic artery (arrow). **D)** Insertion of the stent will block collaterals from the superior mesenteric artery (arrows).

요약(국문초록)

서론: 단독성 상장간동맥 박리에 비해 자발적 단독성 복강동맥 박리는 더 드문 희귀질환으로서 현재까지 정립된 치료법이 없다. 이 논문에서 복강 동맥 박리에 대한 약물치료와 스텐트 삽입술의 장기 효과와 효능에 대해서 알아보고자 한다.

방법: 2006년 9월부터 2018년 10월까지 증상이 있는 16명의 자발적 단독성 복강동맥 박리 환자를 후향적으로 관찰하고 분석하였다.

결과: 평균 나이는 51.2 ± 7.9 세이며 중앙 추적기간은 33.3 (1.0 - 118.9) 개월이었다. 16명의 환자들 중 4명은 동맥류 및 장기 허혈 소견이 보여 조기 스텐트 삽입술을 시행하였다. 약물 치료 병행하며 추적 관찰 중이었던 나머지 환자들 중 4명은 증상이 지속되고 박리 범위가 증가하였다. 그 중 3명은 이후 스텐트 삽입술에 성공하였고 한 명은 혈전의 범위가 커 스텐트 삽입술에 실패하였다. 나머지 8명의 환자들은 약물 치료로 증상 호전되었다. 스텐트 삽입술을 시행한 7명의 환자들의 중앙 추적기간은 77.3 (34.3 - 118.9) 개월이었고 마지막 추적관찰 시점에도 모든 스텐트는 개방성이 유지되고 있었다.

결론: 자발적 단독성 복강동맥 박리에서 스텐트 삽입술은 좋은 장기 성적을 보이고 있다. 합병증을 동반한 복강동맥 박리 환자에서 조기 스텐트 삽입술을 고려할 수 있다.

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주요어 : 복강동맥 박리, 스텐트 삽입술

학 번 : 2017-20556