

별첨 1

비뚤림위험 평가

1. 비뚤림위험 평가

ROB

연번(Ref ID)	1(46)													
1저자(출판연도)	Zerbib(2020)													
영역	비뚤림위험	사유												
Adequate sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> Patients were randomised to receive either oesophageal radiofrequency or a sham procedure by the Nantes Clinical Research Centre according to a centralised code (block of 4 per centre) provided by a dedicated software. 												
Allocation concealment (배정순서 은폐)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> 언급없음 												
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> In order to maintain double blind, the endoscopic procedure was performed by an independent physician not involved in the follow-up of patients. Patients and investigators were blinded to the treatment arm until the end of the study 												
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> In order to maintain double blind, the endoscopic procedure was performed by an independent physician not involved in the follow-up of patients. Patients and investigators were blinded to the treatment arm until the end of the study 												
Incomplete outcome data addressed (불충분한 결과자료)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<table border="1"> <thead> <tr> <th></th> <th>중재군</th> <th>비교군</th> </tr> </thead> <tbody> <tr> <td>무작위배정</td> <td>29</td> <td>33</td> </tr> <tr> <td>탈락</td> <td>4(13.8%)</td> <td>9(27.3%)</td> </tr> <tr> <td>분석(48주)</td> <td>25</td> <td>24</td> </tr> </tbody> </table>		중재군	비교군	무작위배정	29	33	탈락	4(13.8%)	9(27.3%)	분석(48주)	25	24
	중재군	비교군												
무작위배정	29	33												
탈락	4(13.8%)	9(27.3%)												
분석(48주)	25	24												
Free of selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> 사전에 정의한 결과지표 모두 보고함 												
Other bias : Cointervention (그 외 비뚤림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> All patients were asked to take a double dose of PPIs after the procedure. Follow-up visits were planned at weeks 4, 8, 12, 18, 24 and 48 post-procedure to assess symptom relief, PPI use and side effects. At each visit, patients were systematically asked "Is your heartburn adequately controlled?". When the response was "yes", the patient was proposed to decrease PPIs from double to single dose, and from single dose to on-demand therapy. 												
Other bias : Funding (그 외 비뚤림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> The study was funded by a grant from the French Ministry of Health (PHRC). 												

연번(Ref ID)	2(75)	
1저자(출판연도)	Kalapala(2017)	
영역	비뚤림위험	사유
Adequate sequence generation (무작위 배정순서 생성)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> random 구체적 방법 언급 없음
Allocation concealment (배정순서 은폐)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> 언급 없음
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> 언급 없음
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> 언급 없음
Incomplete outcome data addressed (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> 결측치 없음
Free of selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> 사전에 정의한 결과지표 모두 보고함
Other bias : Funding (그 외 비뚤림)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> 언급없음

연번(Ref ID)		3(1181)
1저자(출판연도)		Arts(2012)
영역	비뚤림위험	사유
Adequate sequence generation (무작위 배정순서 생성)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> 교차연구설계이용 랜덤방법 구체적으로 언급 없음
Allocation concealment (배정순서 은폐)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> 언급없음
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> At follow-up after the sham or active procedure, the patient was evaluated by one of the investigators and a study nurse who were unaware of the randomization sequence. The endoscopist who was performing the active or sham procedure, as well as the endoscopy nurse assisting, were not involved in further follow-up.
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> At follow-up after the sham or active procedure, the patient was evaluated by one of the investigators and a study nurse who were unaware of the randomization sequence. The endoscopist who was performing the active or sham procedure, as well as the endoscopy nurse assisting, were not involved in further follow-up.
Incomplete outcome data addressed (불충분한 결과자료)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> 중간에 탈락된 환자에 대한 언급없음
Free of selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> 사전에 정의한 결과지표 모두 보고함
Other bias : Funding (그 외 비뚤림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> Financial support: None

연번(Ref ID)	4(220)	
1저자(출판연도)	Aziz(2010)	
영역	비풀림위험	사유
Adequate sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> Block randomization was used to assign treatment status. If eligibility criteria were met during the endoscopy, the endoscopist opened the appropriate sequentially sealed envelope. Subsequent contact between the subject and the endoscopist was minimized, and staff blinded to the treatment assignments performed subsequent outcome assessments.
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> 36 GERD patients were randomized by sealed envelope and divided into three groups.
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> Subsequent contact between the subject and the endoscopist was minimized, and staff blinded to the treatment assignments performed subsequent outcome assessments.
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> Subsequent contact between the subject and the endoscopist was minimized, and staff blinded to the treatment assignments performed subsequent outcome assessments.
Incomplete outcome data addressed (불충분한 결과자료)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> 환자 탈락에 대한 언급없음. flow chart 언급없음
Free of selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> 사전에 정의한 결과지표 모두 보고함
Other bias : Funding (그 외 비풀림)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> 언급없음

연번(Ref ID)	5(241)													
1저자(출판연도)	Coron(2008)													
영역	비뚤림위험	사유												
Adequate sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> Treatment status was assigned by using a centrally generated, stratified (by study site) block randomization 												
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> If eligibility criteria were met, the principal investigator in each centre was allowed to open the appropriate sealed envelope. 												
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> Although not blinded, our study has several strengths compared to previous trials. 												
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> Although not blinded, our study has several strengths compared to previous trials. 												
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	중재군	비교군												
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Free of selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> 사전에 정의한 결과지표 모두 보고함 												
Other bias : Funding (그 외 비뚤림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> Declaration of funding interests: This work was supported in part by the Societe Nationale Francaise de Gastro-Enterologie (SNFGE), INSERM and CHU of Nantes. The study was conducted independently of Curon Ltd with no interference of this company in the trial design or analysis of results. 												

연번(Ref ID)	6(336)																
1저자(출판연도)	Corley(2003)																
영역	비뚤림위험	사유															
Adequate sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> Treatment status was assigned by using a centrally generated, stratified (by study site) block randomization. 															
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> If eligibility criteria were met during the endoscopy, the endoscopist opened the appropriate sequential sealed envelope. 															
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> Subsequent contact between the subject and endoscopist was minimized, and staff blinded to the treatment assignments performed subsequent outcome assessments. 															
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> Subsequent contact between the subject and endoscopist was minimized, and staff blinded to the treatment assignments performed subsequent outcome assessments. 															
Incomplete outcome data addressed (불충분한 결과자료)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<table border="1"> <thead> <tr> <th></th> <th>중재그룹</th> <th>비교그룹</th> </tr> </thead> <tbody> <tr> <td>무작위배정</td> <td>35</td> <td>29</td> </tr> <tr> <td>중간탈락</td> <td></td> <td></td> </tr> <tr> <td>6개월 분석</td> <td>31(88.6%)</td> <td>25(86.2%)</td> </tr> <tr> <td>12개월 분석</td> <td>25(71.4%)</td> <td>17(58.6%)</td> </tr> </tbody> </table>		중재그룹	비교그룹	무작위배정	35	29	중간탈락			6개월 분석	31(88.6%)	25(86.2%)	12개월 분석	25(71.4%)	17(58.6%)
	중재그룹	비교그룹															
무작위배정	35	29															
중간탈락																	
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Free of selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> 사전에 정의한 결과지표 모두 보고함 															
Other bias : Funding (그 외 비뚤림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> Role of the Funding Source: Curon Medical provided financial support for the research, assisted with the study design, and coordinated the data collection. The authors performed the procedures, collected the data, performed the analysis, wrote the manuscript, and decided whether and where to submit the manuscript. The authors' independence was established before the initiation of the study. 															

RoBANS ver 2.0

연번(Ref ID)	7(54)													
1저자(출판연도)	He(2020)													
영역	비뚤림위험	사유												
대상군 비교 가능성	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • table 1, 구간 p>.05 												
대상군 선정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • The inclusion criteria were as follows: <ol style="list-style-type: none"> (1) NERD diagnosed by acid exposure time (AET) >6% or DeMeester score ≥ 14.7 with symptom correlations $\geq 50\%$[12]; (2) endoscopically evidenced absence of esophagitis or Barrett esophagus[12]; (3) responsiveness to PPIs defined as a $\geq 50\%$ reflux symptom control after 2 weeks of standard PPI treatment[13]; (4) lower than normal LES pressure detected by high-resolution esophageal manometry; (5) no hiatal hernia or small (<2 cm) hiatal hernia; (6) a chronic history of persistent typical symptoms of heartburn and/or regurgitation despite daily use of PPIs; and (7) age between 18 and 70 years. • The exclusion criteria were as follows: <ol style="list-style-type: none"> (1) under 18 or over 70 years of age; (2) pregnant; (3) achalasia or other primary esophageal motility disorders; (4) no response to PPI treatment, which was defined as <50% reflux symptom control after 2 weeks of standard PPI treatment[13]; (5) sliding hiatal hernia >2cm; (6) collagen vascular disease or other autoimmune disease; (7) previous esophagogastric surgery; (8) coagulation disorders or contradictions for surgery; or (9) severe uncontrolled medical illness. 												
교란변수	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음 												
노출 측정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • PPI group, Stretta group 방법 상세하게 제시하고 있음 												
평가자의 눈가림	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음 												
결과 평가	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • the reflux disease questionnaire, the SF-36 Health Survey, PPI usage and satisfaction, adverse events and safety 												
불완전한 결과자료	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<table border="1"> <thead> <tr> <th></th> <th>Stretta</th> <th>PPI</th> </tr> </thead> <tbody> <tr> <td>배정</td> <td>32</td> <td>23</td> </tr> <tr> <td>탈락</td> <td>4(12.5%)</td> <td>2(8.7%)</td> </tr> <tr> <td>분석</td> <td>28</td> <td>21</td> </tr> </tbody> </table>		Stretta	PPI	배정	32	23	탈락	4(12.5%)	2(8.7%)	분석	28	21
	Stretta	PPI												
배정	32	23												
탈락	4(12.5%)	2(8.7%)												
분석	28	21												

연번(Ref ID)	7(54)	
1저자(출판연도)	He(2020)	
선택적 결과 보고	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 사전에 정의한 결과지표 모두 보고함
민간연구비 지원	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • This study was supported by the Suining Central Hospital research fund (SCHQ18046). • The authors have no conflicts of interest to disclose.

연번(Ref ID)	8(49)										
1저자(출판연도)	Ma(2020)										
영역	비풀림위험	사유									
대상군 비교 가능성	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • table 1, 구간 $p > .05$ 									
대상군 선정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • Patients were included if they were 18 years old or older, had clinical symptoms such as regurgitation, retrosternal pain and heartburn. Patients were excluded if they had diseases in the central nervous system or connective tissue, were previously performed esophageal or gastric surgery. Patients with esophageal stricture, shortened esophagus, impaired distal esophageal peristalsis, autoimmune diseases, collagen vascular diseases, Barrett's esophagus, coagulation disorders, acute heart failure, cardiogenic shock and other important organ diseases and previous thoracic surgery were also excluded. 									
교란변수	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음 									
노출 측정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 중재시술 및 비교시술 방법에 대해 상세히 제시하고 있음 									
평가자의 눈가림	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음 									
결과 평가	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • reflux time and frequency, the DeMeester score, LES pressure, esophageal pH, prognosis 분석, 									
불완전한 결과자료	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<table border="1"> <thead> <tr> <th></th> <th>중재그룹</th> <th>비교그룹</th> </tr> </thead> <tbody> <tr> <td>배정</td> <td>88</td> <td>142</td> </tr> <tr> <td>분석</td> <td>86(97.7%)</td> <td>140(98.6%)</td> </tr> </tbody> </table>		중재그룹	비교그룹	배정	88	142	분석	86(97.7%)	140(98.6%)
	중재그룹	비교그룹									
배정	88	142									
분석	86(97.7%)	140(98.6%)									
선택적 결과 보고	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 사전에 정의한 결과지표 모두 보고함 									
민간연구비 지원	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • Funding None. 									

연번(Ref ID)	9(578)													
1저자(출판연도)	Liang(2019)a													
영역	비뚤림위험	사유												
대상군 비교 가능성	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • table 1, 군간 $p > .05$ 												
대상군 선정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 선정, 제외기준 구체적으로 명시하고 있음 												
교란변수	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음 												
노출 측정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 중재기술, 비교기술 상세하게 기술하고 있음 												
평가자의 눈가림	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음 												
결과 평가	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • frequency and severity of the major GERD symptoms, through a standardized questionnaire 												
불완전한 결과자료	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<table border="1"> <thead> <tr> <th></th> <th>중재그룹</th> <th>비교그룹</th> </tr> </thead> <tbody> <tr> <td>배정</td> <td>85</td> <td>80</td> </tr> <tr> <td>탈락</td> <td>25(41.7%)</td> <td>15(18.8%)</td> </tr> <tr> <td>분석</td> <td>60</td> <td>65</td> </tr> </tbody> </table>		중재그룹	비교그룹	배정	85	80	탈락	25(41.7%)	15(18.8%)	분석	60	65
	중재그룹	비교그룹												
배정	85	80												
탈락	25(41.7%)	15(18.8%)												
분석	60	65												
선택적 결과 보고	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 사전에 정의한 결과지표 모두 보고함 												
민간연구비 지원	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • All authors have no conflict of interest. This work was supported by grants from the National Key Project Program during the 13th 5-Year Plan Period of China (2016YFC1302003), and from the Major Science and Technology Project of Sichuan Province, China (No. 2017SZ0056), and the Scientific Research Project of Sichuan Health and Family Planning Commission, China (No. 17PJ177), and the Scientific Research Project of Natinal Clinical Research Center for Geriatrics (Z2018B19). 												

연번(Ref ID)	10(565)													
1저자(출판연도)	Liang(2019)b													
영역	비폴립위험	사유												
대상군 비교 가능성	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> 기초특성표 비교 table 및 기술 없음 												
대상군 선정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> 선정 배제기준 제시하고 있음 												
교란변수	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> 언급없음 												
노출 측정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> 중재기술, 비교기술 구체적으로 기술하고 있음 												
평가자의 눈가림	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> 언급없음 												
결과 평가	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> frequency and severity of the major GERD symptoms, medication independence and complications, through a standardized questionnaire 												
불완전한 결과자료	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<table border="1"> <thead> <tr> <th></th> <th>중재그룹</th> <th>비교그룹</th> </tr> </thead> <tbody> <tr> <td>배정</td> <td>47</td> <td>51</td> </tr> <tr> <td>탈락</td> <td>7, 14.9%</td> <td>1</td> </tr> <tr> <td>분석</td> <td>40</td> <td>50</td> </tr> </tbody> </table>		중재그룹	비교그룹	배정	47	51	탈락	7, 14.9%	1	분석	40	50
	중재그룹	비교그룹												
배정	47	51												
탈락	7, 14.9%	1												
분석	40	50												
선택적 결과 보고	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> 사전에 정의한 결과지표 모두 보고함 												
민간연구비 지원	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> All authors have no conflict of interest. This work was supported by grants from the National Key Project Program during the 13th 5-Year Plan Period of China (2016YFC1302003), and from the Major Science and Technology Project of Sichuan Province, China (No. 2017SZ0056), and the Scientific Research Project of Sichuan Health and Family Planning Commission, China (No. 17PJ177), and the Scientific Research Project of Natinal Clinical Research Center for Geriatrics (Z2018B19). 												

연번(Ref ID)	11(107)	
1저자(출판연도)	Hu(2015)	
영역	비뚤림위험	사유
대상군 비교 가능성	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • table 2 기초특성표에서 군간 차이에 대한 언급하고 있지 않음.
대상군 선정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 선정기준 제시하고 있음
교란변수	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음
노출 측정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 중재시술, 비교시술 방법 제시하고 있음
평가자의 눈가림	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • The limitations of the present study are as follows: lack of controls, randomization, and blinding.
결과 평가	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • symptoms in questionnaire, symptom reduction rate • the Reflux Diagnostic Questionnaire 이용
불완전한 결과자료	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 148 cases fulfilled our criteria, and 137 patients were successfully followed up for 1 year and 5 years after antireflux intervention. SRF n=82, LNF, n=55 • 각 그룹당 몇명이 탈락했는지 제시하고 있지 않음
선택적 결과 보고	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 사전에 정의한 결과지표 모두 보고함
민간연구비 지원	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • Zhiwei Hu, Jimin Wu, Zhonggao Wang, Yu Zhang, Weitao Liang, and Chao Yan declare no potential conflicts of interest.

연번(Ref ID)	12(111)	
1저자(출판연도)	Liang(2015)	
영역	비풀림위험	사유
대상군 비교 가능성	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • table 1, 군간 p>.05
대상군 선정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 선정, 배제기준 제시하고 있음
교란변수	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음
노출 측정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 중재시술, 비교시술 방법에 대해 구체적으로 제시하고 있음
평가자의 눈가림	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음
결과 평가	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • frequency and severity of the major GERD symptoms, through a standardized questionnaire
불완전한 결과자료	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 165명 등록, 나중에 31명 탈락, • Of these patients, 65/80 (81.3%) patients with LTF and 60/85 (70.6%) with the Stretta procedure were included in the final analysis
선택적 결과 보고	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 사전에 정의한 결과지표 모두 보고함
민간연구비 지원	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • Disclosure Statement No competing financial interests exist.

연번(Ref ID)	13(106)													
1저자(출판연도)	Yan(2015)													
영역	비풀림위험	사유												
대상군 비교 가능성	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • table 1, 군간 p>.05 												
대상군 선정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 선정, 배제기준 제시하고 있음 												
교란변수	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음 												
노출 측정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 중재시술, 비교시술 방법 구체적으로 제시하고 있음 												
평가자의 눈가림	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음 												
결과 평가	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • frequency and severity of the extra-esophageal GERD symptoms, a standardized questionnaire using the 6 point Likert scale system 												
불완전한 결과자료	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<table border="1"> <tr> <td></td> <td>중재그룹</td> <td>비교그룹</td> </tr> <tr> <td>배정</td> <td>47</td> <td>51</td> </tr> <tr> <td>1년</td> <td colspan="2">96명</td> </tr> <tr> <td>3년</td> <td colspan="2">90명 자료 활용가능</td> </tr> </table> <ul style="list-style-type: none"> • 각 군별로 몇명이 탈락되었는지 명시하고 있지 않음 		중재그룹	비교그룹	배정	47	51	1년	96명		3년	90명 자료 활용가능	
	중재그룹	비교그룹												
배정	47	51												
1년	96명													
3년	90명 자료 활용가능													
선택적 결과 보고	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 사전에 정의한 결과지표 모두 보고함 												
민간연구비 지원	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • Conflict-of-interest statement: The authors of this manuscript have no conflicts of interest to disclose. 												

연번(Ref ID)	14(163)	
1저자(출판연도)	Hu(2014)	
영역	비뚤림위험	사유
대상군 비교 가능성	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 각 그룹별 인구학적 특성 비교표 또는 비교내용이 없음
대상군 선정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 선정기준 제시하고 있음
교란변수	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음
노출 측정	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 중재시술 및 비교시술에 대한 구체적 방법을 제시하고 있지 않음
평가자의 눈가림	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음
결과 평가	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • ambulatory 24 hour dual pH monitoring 이용 • the Reflux Diagnostic Questionnaires
불완전한 결과자료	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 전체 57명, SRF 24명, LNF 33명, 이후 추적관찰하면서 탈락된 환자에 대한 언급 없음
선택적 결과 보고	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 사전에 정의한 결과지표 모두 보고함
민간연구비 지원	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • Competing interests The authors declare that they have no competing interests.

연번(Ref ID)	15(124)	
1저자(출판연도)	Liang(2014)a	
영역	비풀림위험	사유
대상군 비교 가능성	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • table 1, 군간 p>.05
대상군 선정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 선정기준 제시하고 있음
교란변수	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음
노출 측정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 중재시술과 비교시술 방법에 대해 구체적으로 제시하고 있음
평가자의 눈가림	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • retrospective study
결과 평가	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • standardized questionnaire using the 6 point Likert scale system
불완전한 결과자료	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • retrospective 연구라서 대상자 탈락이 없는 것으로 간주
선택적 결과 보고	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 사전에 정의한 결과지표 모두 보고함
민간연구비 지원	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • Conflicts of interest – The authors certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript.

연번(Ref ID)	16(130)													
1저자(출판연도)	Liang(2014)b													
영역	비풀림위험	사유												
대상군 비교 가능성	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • table 1, 군간 $p > .05$ 												
대상군 선정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 선정 제외기준 제시하고 있음 												
교란변수	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음 												
노출 측정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 중재시술, 비교시술 방법에 대해 구체적으로 제시하고 있음 												
평가자의 눈가림	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음 												
결과 평가	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • standardized questionnaire using the 6 point Likert scale system 												
불완전한 결과자료	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<table border="1"> <thead> <tr> <th></th> <th>중재시술</th> <th>비교시술</th> </tr> </thead> <tbody> <tr> <td>배정</td> <td>113</td> <td>102</td> </tr> <tr> <td>탈락</td> <td>21(18.6%)</td> <td>15(14.7%)</td> </tr> <tr> <td>분석</td> <td>92</td> <td>87</td> </tr> </tbody> </table>		중재시술	비교시술	배정	113	102	탈락	21(18.6%)	15(14.7%)	분석	92	87
	중재시술	비교시술												
배정	113	102												
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민간연구비 지원	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • Conflicts of interest - The authors certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript. 												

연번(Ref ID)	17(346)	
1저자(출판연도)	Richards(2003)	
영역	비풀림위험	사유
대상군 비교 가능성	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 두 군에 대한 인구학적 특성 비교표나 비교내용이 없음
대상군 선정	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 선정 제외기준 언급없음
교란변수	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음
노출 측정	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 중재시술, 비교시술 방법 구체적으로 제시하고 있음
평가자의 눈가림	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 언급없음
결과 평가	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • validated GERD-specific and general quality-of-life(QOL) instruments.
불완전한 결과자료	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 탈락에 대한 언급 없음
선택적 결과 보고	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • 사전에 정의한 결과지표 모두 보고함
민간연구비 지원	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<ul style="list-style-type: none"> • Supported by an educational grant from Ethicon Endosurgery, Cincinnati, Ohio (H.L.H., A.T., L.K.). W.O.R. was a consultant to and was supported by an educational grant from Curon Medical, Palo Alto, California.