

华法林对拔牙术后出血并发症影响的 Meta 分析



李杰, 王占刚, 陈刚

300070

【摘要】 目的 方法 PubMed EMBASE The
Cochrane Library 2016 9 CNKI VIP WanFang Data
FDA
2016 9 30 RevMan 5.3
Meta 结果 8 3 RCTs 5 Meta
95%CI 0.49 1.51 $P=0.60$ RR=0.67 95%CI 0.45 1.01 $P=0.06$ 结论
RCTs RR=0.86

1957 Ziffer [3]

[4]

prothrombin time-international normalized ratio PT-INR

[5]

2

PT-INR≤2.0

[6]

low molecular weight heparins LMWH

[7-10]

[11-17]

PT- INR≤4.0

[18]

LMWH

Meta

1 资料与方法

1.1 纳入与排除标准

PT-INR

1.1.1 研究类型

RCTs

1.1.2 研究对象

6

1.5 mg/d

4.0

1.1.3 干预措施

LMWH

1.1.4 结局指标

≥1 ≥ PT-INR

1.1.5 排除标准

1.2 文献检索

PubMed EMBase The Cochrane Library 2016 9 CNKI VIP WanFang Data

FDA

RCTs

2016 9 30

coumarin warfarin anticoagulant tooth extraction dental surgery hemorrhage bleeding

EMbase

1

1.3 文献筛选与资料提取

2

EndNote X7

框 1 EMBase 检索策略

```

#1 warfarin
#2 anticoagulant
#3 coumarin
#4 tooth extraction
#5 dental surgery
#6 bleeding
#7 hemorrhage
#8 #1 OR #2 OR #3
#9 #4 OR #5
#10 #6 OR #7
#11 #8 AND #9 AND #10

```

1.4 纳入研究的偏倚风险评价

2 Cochrane [19]
 RCT RCT
 NOS Newcastle-Ottawa scale [20]

2.3 纳入研究的偏倚风险评价结果

3 RCT 2 5

2.4 Meta 分析结果

3 RCT [21-23]

1.5 统计分析

Cochrane RevMan 5.3 133 137
 relative risk RR Meta
 95%CI χ^2
 $P \geq 0.1$ $I^2 \leq 50\%$ RR=0.86 95%CI 0.49 1.51 P=0.60 [4, 6, 17, 24, 25]

Meta 2 5
LMWH

272

222

Meta

2 结果

RR=0.67 95%CI 0.45 1.01

2.1 文献检索结果

868
 8 [4, 6, 17, 21-25] 764

P=0.06 3

LMWH

LMWH

1

2.2 纳入研究的基本特征

8 [4, 6, 17, 24, 25] 3 RCT [21-23] 5
 1

3 讨论

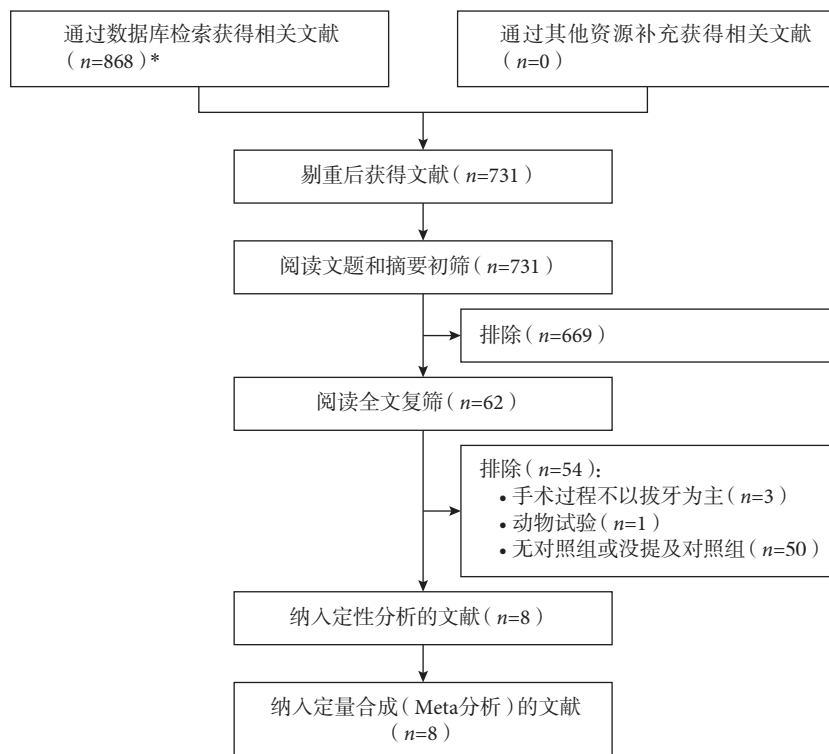


图 1 文献筛选流程及结果 *

Library n=33 CNKI n=10 VIP n=5 WanFang Data n=22

PubMed n=456 EMBase n=342 The Cochrane

表 1 纳入研究的基本特征

	/						PT-INR									
	T	C	T	C	T	C	T	C								
Cannon 2003 ^[4]	35 23/12	35 17/18	36	78	38	80	2	1.5	7.5 mg/d	1.5	7.5 mg/d	1.4	1.9	2	4	5
Devani 1998 ^[6]	32 14/18	33 15/18	32	81	30	82	2	3	10 mg/d	3	10 mg/d	1.2	2.1	2.0	3.9	5
Karsli 2011 ^[17]	12 6/6	13 7/6	45.1±11.9	46.2±10.6			3		LMWH 24 h 6 h			1.6±0.4	2.6±0.7			7
Borea 1993 ^[21]	RCT 15 7/8	15 5/10	61.1±10	62.7±6.1								1.69±0.2	3.09±0.2			-
Evans 2002 ^[22]	RCT 52 57/43	57 58/42	30	93	36	92	2					1.2	2.3	1.2	4.7	7
Sacco 2007 ^[23]	RCT 66	65	64±11	61±12			1	3	1			1.77±0.26	2.89±0.42			7
Al-Mubarak 2007 ^[24]	56 25/31	52 24/28	48.1±13.1	53.1±13.7			1	2	1	12 h		1.9±0.4	2.7±0.4			7
Blinder 2001 ^[25]	137 74/63	89 58/31	37	93	40	90		2	10 mg/d	2	10 mg/d	1.5	2.49	2.5	3.49	-
-	T	C														

表 2 纳入的 RCT 偏倚风险评价

Borea 1993 ^[21]						
Evans 2002 ^[22]	1	2				
Sacco 2007 ^[23]					5	

表 3 纳入的队列研究偏倚风险评价

									NOS
Cannon 2003 ^[4]	1	1	1	1	1	1	1	1	8
Devani 1998 ^[6]	0	0	1	1	1	1	1	1	6
Karsli 2011 ^[17]	1	1	1	1	1	1	1	1	8
Al-Mubarak 2007 ^[24]	0	0	1	1	1	1	1	1	6
Blinder 2001 ^[25]	0	0	1	1	1	1	0	0	4

Meta
12 24 h
d 4 5 d PT-INR 1.4 ^[26] P>0.05 8 764 PT-INR ^[27] 764
LMWH
Meta ^[17] 8 ^[4, 6, 17, 21-25] 1 Karsli ^[17] LMWH Meta

参考文献

- 1 Hirsh J, Dalen JE, Deykin D, *et al.* Oral anticoagulants. Mechanism of action, clinical effectiveness, and optimal therapeutic range. *Chest*, 1992, 102(4 Suppl): 312-326.
- 2 Hirsh J, Dalen J, Anderson DR, *et al.* Oral anticoagulants: Mechanism of action, clinical effectiveness, and optimal therapeutic range. *Chest*, 2001, 119(Suppl 1): 8-21.
- 3 Ziffer AM, Scopp IW, Beck J, *et al.* Profound bleeding after dental extractions during dicumarol therapy. *N Engl J Med*, 1957, 256(8): 351-353.
- 4 Cannon PD, Dharmar VT. Minor oral surgical procedures in patients on oral anticoagulants-a controlled study. *Aust Dent J*, 2003, 48(2): 115-118.
- 5 Herman WW, Konzelman JL Jr. Current perspectives on dental patients receiving coumarin anticoagulant therapy. *J Am Dent Assoc*, 1997, 128(3): 327-335.
- 6 Devani P, Lavery KM, Howell CJT. Dental extractions in patients on warfarin: Is alteration of anticoagulant regime necessary?. *Brit J Oral Max Surg*, 1998, 36(2): 107-111.
- 7 Katholi RE, Nolan SP, McGuire LB. The management of anticoagulation during noncardiac operations in patients with prosthetic heart valves. A prospective study. *Am Heart J*, 1978, 96(2): 163-165.
- 8 Bonow RO, Carabello BA, Chatterjee K, *et al.* 2008 focused update incorporated into the acc/aha 2006 guidelines for the management of patients with valvular heart disease: A report of the american college of cardiology/american heart association task force on practice guidelines (writing committee to revise the 1998 guidelines for the management of patients with valvular heart disease). Endorsed by the society of cardiovascular anesthesiologists, society for cardiovascular angiography and interventions, and society of thoracic surgeons. *J Am Coll Cardiol*, 2008, 52(13): 1-142.
- 9 Vahanian A, Alfieri O, Andreotti F, *et al.* guidelines on the management of valvular heart disease (version 2012). The joint task force on the management of valvular heart disease of the european society of cardiology (esc) and the european association for cardiothoracic surgery (eacts). *G Ital Cardiol (Rome)*, 2013, 14(3): 167-214.
- 10 Wilson SJA, Morgan J, Gray L, *et al.* A model for perioperative outpatient management of anticoagulation in high-risk patients: An evaluation of effectiveness and safety. *Can J Hos Pharm*, 2001, 54(4): 269-277.
- 11 Zanon E, Martinelli F, Bacci C, *et al.* Safety of dental extraction among consecutive patients on oral anticoagulant treatment managed using a specific dental management protocol. *Blood Coagul Fibrin*, 2003, 14(1): 27-30.
- 12 Bacci C, Maglione M, Favero L, *et al.* Management of dental extraction in patients undergoing anticoagulant treatment. *Thromb Haemostasis*, 2010, 104(5): 972-975.
- 13 , , , , , 2013, 48(7): 385-387.
- 14 Broekema FI, van Minnen B, Jansma J, *et al.* Risk of bleeding after dentoalveolar surgery in patients taking anticoagulants. *Brit J Oral Max Surg*, 2014, 52(3): 15-19.
- 15 Bajkin BV, Vujkov SB, Milekic BR, *et al.* Risk factors for bleeding after oral surgery in patients who continued using oral anticoagulant therapy. *J Am Dent Assoc*, 2015, 146(6): 375-381.
- 16 . , 2015, 12(4): 27.
- 17 Karsli ED, Erdogan O, Esen E, *et al.* Comparison of the effects of warfarin and heparin on bleeding caused by dental extraction: a clinical study. *J Oral Maxil Surg*, 2011, 69(10): 2500-2507.
- 18 Souto JC, Oliver A, Zuazu-Jausoro I, *et al.* Oral surgery in anticoagulated patients without reducing the dose of oral anticoagulant: A prospective randomized study. *J Oral Maxil Surg*, 1996, 54(1): 27-32.
- 19 Cochrane handbook for systematic reviews of interventions version 5.3. Available at: <http://www.cochranehandbook.org>.
- 20 Newcastle-ottawa quality assessment scale-cohort studies. Available at: http://www.ohri.ca/programs/clinical_epidemiology/oxford.asp.
- 21 Borea G, Montebugnoli L, Capuzzi P, *et al.* Tranexamic acid as a mouthwash in anticoagulant-treated patients undergoing oral surgery. An alternative method to discontinuing anticoagulant therapy. *Oral Surg Oral Med Oral Pathol*, 1993, 75(1): 29-31.
- 22 Evans IL, Sayers MS, Gibbons AJ, *et al.* Can warfarin be continued during dental extraction? Results of a randomized controlled trial. *Brit J Oral Max Surg*, 2002, 40(3): 248-252.
- 23 Sacco R, Sacco M, Carpenedo M, *et al.* Oral surgery in patients on oral anticoagulant therapy: A randomized comparison of different intensity targets. *Oral Surg Oral Med Oral Pathol*, 2007, 104(1): 18-21.
- 24 Al-Mubarak S, Al-Ali N, Abou Rass M, *et al.* Evaluation of dental extractions, suturing and inr on postoperative bleeding of patients maintained on oral anticoagulant therapy. *Brit Dent J*, 2007, 203(7): 14,410-411.
- 25 Blinder D, Manor Y, Martinowitz U, *et al.* Dental extractions in patients maintained on oral anticoagulant therapy: Comparison of inr value with occurrence of postoperative bleeding. *Int J Oral Maxillofac Surg*, 2001, 30(6): 518-521.
- 26 White RH, McKittrick T, Hutchinson R, *et al.* Temporary discontinuation of warfarin therapy: Changes in the international normalized ratio. *Ann Intern Med*, 1995, 122(1): 40-42.
- 27 Perry DJ, Noakes TJC, Helliwell PS. Guidelines for the management of patients on oral anticoagulants requiring dental surgery. *Brit Dent J*, 2007, 203(7): 389-393.
- 28 Wahl MJ. Myths of dental surgery in patients receiving anticoagulant therapy. *J Am Dent Assoc*, 2000, 131(1): 77-81.
- 29 Armstrong MJ, Gronseth G, Anderson DC, *et al.* Summary of evidence-based guideline: Periprocedural management of antithrombotic medications in patients with ischemic cerebrovascular disease report of the guideline development subcommittee of the american academy of neurology. *Neurology*, 2013, 80(22): 2065-2069.
- 30 Powless RA, Omar HR, Mangar D, *et al.* Management of

- antithrombotic therapy before full-mouth extraction. *J Am Dent Assoc*, 2013, 41(6): 417-420.
- 31 Scully C, Wolff A. Oral surgery in patients on anticoagulant therapy. *Oral Surg Oral Med Oral Pathol*, 2002, 94(1): 57-64.
- 32 Czembirek C, Poeschl WP, Eder-Czembirek C, *et al.* Causes and timing of delayed bleeding after oral surgery. *Clini Oral Invest*, 2014, 18(6): 1655-1661.
- 33 Sindet-Pedersen S, Ramstrom G, Bernvil S, *et al.* Hemostatic effect of tranexamic acid mouthwash in anticoagulant-treated patients undergoing oral surgery. *N Engl J Med*, 1989, 320(13): 840-843.
- 34 Ramstrom G, Sindet-Pedersen S, Hall G, *et al.* Prevention of postsurgical bleeding in oral surgery using tranexamic acid without dose modification of oral anticoagulants. *J Oral Maxil Surg*, 1993, 51(11): 1211-1216.
- 35 Wood GD, Deeble T. Warfarin: Dangers with antibiotics. *Dent Update*, 1993, 20(8): 350,352-353.

2016-04-16

2017-02-28