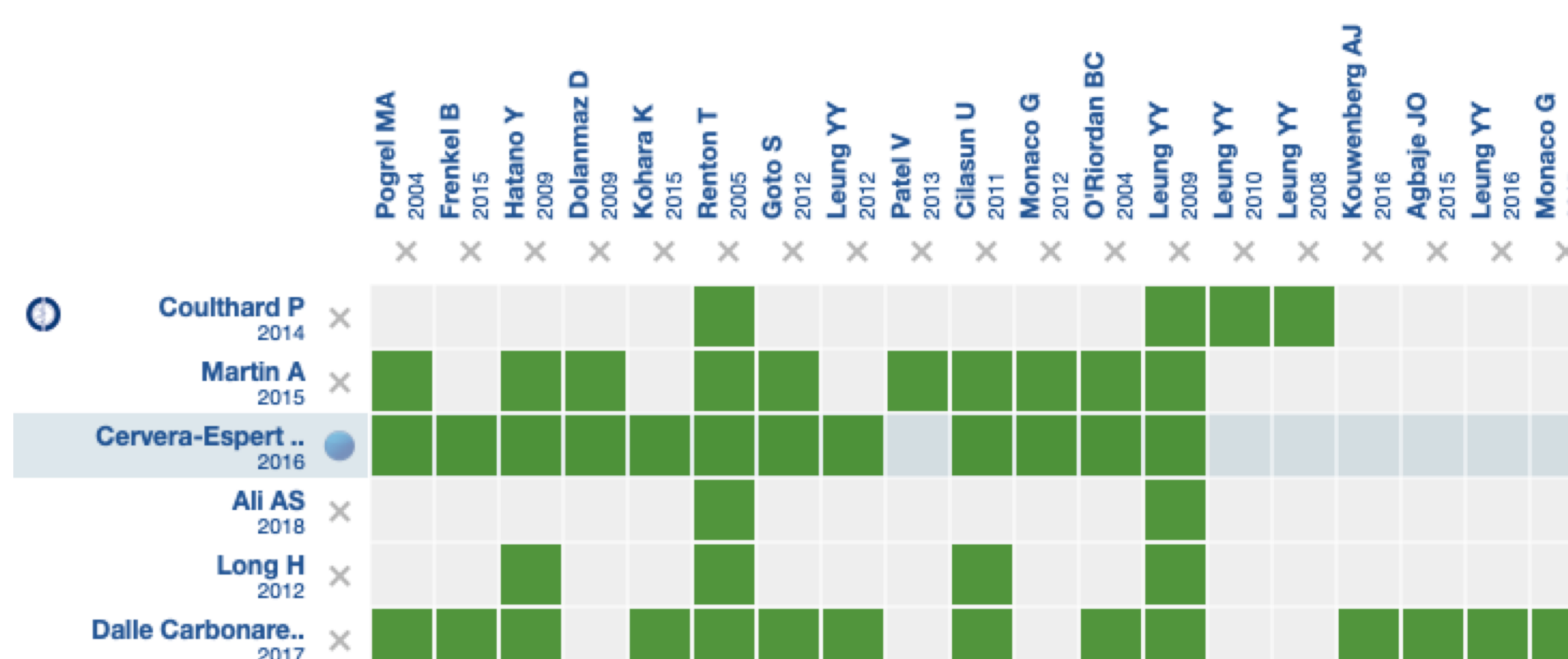


Coronectomy compared to total removal of the lower third molars probably decreases the risk of paresthesia and it's not possible to establish clearly whether increases the risk of infection.

The Problem

The lower third molars have a close relationship with the mandibular canal, and their complete extraction can produce an injury to the inferior alveolar nerve (IAN), generating different degrees of paresthesia. Coronectomy is a surgical alternative that is described as the removal of the crown, leaving the roots in its alveolus to avoid damaging the IAN when it has a relationship with the mandibular third molar. There is uncertainty if this procedure reduces the risk of injury to the IAN and if it is associated with infections caused by maintaining the roots in the alveolus.



Methods

- We conducted a search in Epistemonikos, which is maintained through searches in multiple sources of information, including MEDLINE, Embase, and Cochrane, among others.
- We extracted the data from the identified reviews and analyzed it from the primary studies.
- With this information, we generated a structured summary called FRISBEE (Friendly Summaries of Body of Evidence using Epistemonikos), following a pre-established format, which includes key messages, a summary of the evidence set (presented as a matrix of evidence in Epistemonikos), meta-analysis of the total of the studies when possible, a summary table of results with the GRADE method, and a section of other considerations for decision-making.

Key Results

- We identified 6 systematic reviews that together included 17 primary studies, including 2 randomized trials, which can be seen in the following evidence matrix.
- The risk ratio for IAN injury was 0.27 (95% confidence interval (CI) 0.12 to 0.60) in favor of coronectomy. The risk ratio for infection was 1.09 (95% CI 0.41 to 2.92) favoring complete extraction.

Patient or healthcare consumer involvement

- Most likely there is variability in the decision-making regarding this intervention. Considering the results published in this article, in cases where there is an evident risk of damage to the IAN, most patients could prefer coronectomy as a surgical option. However, exceptions may occur because patients are not willing to maintain a root remnant. Also, both clinicians and patients might prefer to avoid the possible risk of infection, which is not clear based on our results.

Conclusions

- Coronectomy compared to total extraction of the lower third molars is probably associated with less damage to the IAN. It is not clear if there are differences between coronectomy and total extraction for the development of infection because the certainty of the evidence is very low.

Coronectomy compared with total extraction for third molars				
Patients Intervention Comparison	Third molars		Efecto relativo (IC 95%)	Certeza de la evidencia (GRADE)
	Coronectomy	Total extraction		
Desenlaces	Efecto absoluto*			
	WITH TOTAL EXTRACTION	WITH CORONECTOMY		
Parestesia	Difference: molars per 1000		RR 0,27 (0,12 a 0,60)	⊕⊕⊕⊙ ¹ Moderate
	100 per 1000	27 per 1000		
	Difference: 73 less (Margin of error: 40 to 88 less)			
Infección	Difference: molars per 1000		RR 1,09 (0,41 to 2,92)	⊕⊙⊙⊙ ^{1,2} Very low
	46 per 1000	51 per 1000		
	Difference: 5 more (Margin of error: 27 less to 90 more)			

Margin of error: Confidence interval 95% (IC 95%).
RR: Relative risk
GRADE: Grades of evidence from GRADE Working Group

1 A level of certainty of evidence for risk of bias was reduced, because limitations were identified in the masking of the evaluators (performance bias), in the outcomes described (reporting bias) and incomplete results data.
2 Two levels of certainty of the evidence due to inaccuracy were reduced, since each end of the confidence interval involves a very different decision.

FRISBEE: structured summary of systematic reviews of coronectomy for third molar surgery

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