



*Società
Medico Chirurgica
di Ferrara*

Ferrara, 23 Novembre 2019
Aula Magna Nuovo Arcispedale Sant'Anna

**APPROCCIO INTEGRATO MULTIDISCIPLINARE
NELLA PATOLOGIA DELL'ARTICOLAZIONE
TEMPOROMANDIBOLARE**



SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA
Azienda Ospedaliero - Universitaria di Ferrara



UNIVERSITÀ
DEGLI STUDI
DI FERRARA
- EX CARORE FRIGCTUS -



Dott. Milo Vason,
Unità Operativa Anestesia e Rianimazione Ospedaliera
Azienda Ospedaliero-Universitaria Cona-Ferrara
Direttore Dott. Roberto Zoppellari



Ruolo dell'Anestesista

- Assicurare l'esecuzione dell'intervento chirurgico in assenza di ansia e di dolore
- Garantire la sicurezza dell'utente durante la procedura
- Sostenere il circolo, il respiro e i parametri vitali del paziente, prevenendo gli effetti indesiderati potenzialmente associati ai farmaci sedativi

ATM: AG o Sedazione?

- **AG preferibile se:** Artroprotesi ATM, Correzione esiti di fratture-Artroplastica ATM
- **Analgo-sedazione preferibile se:** Artroscopie-Artrocentesi ATM



Gestione delle Vie Aeree: Sedazione o AG?

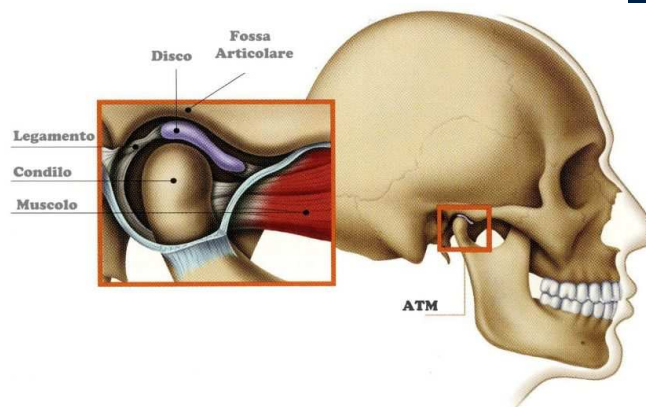
- INTUBAZIONE TRACHEALE



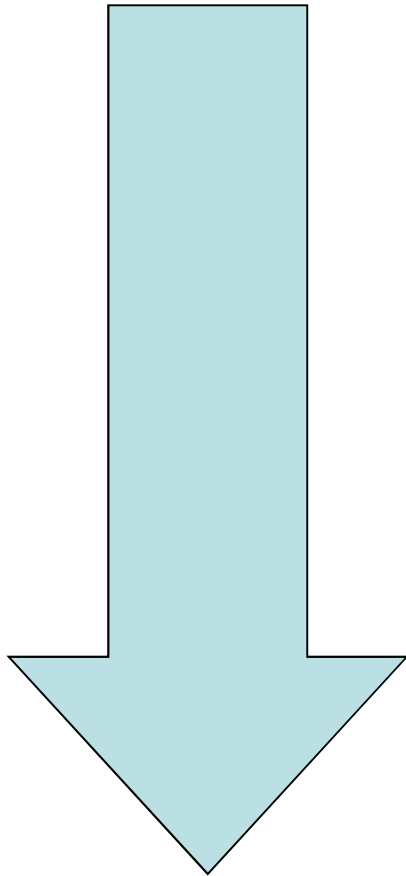
- SEDAZIONE -ANALGESIA
IN RESPIRO SPONTANEO



- MASCHERA LARINGEA



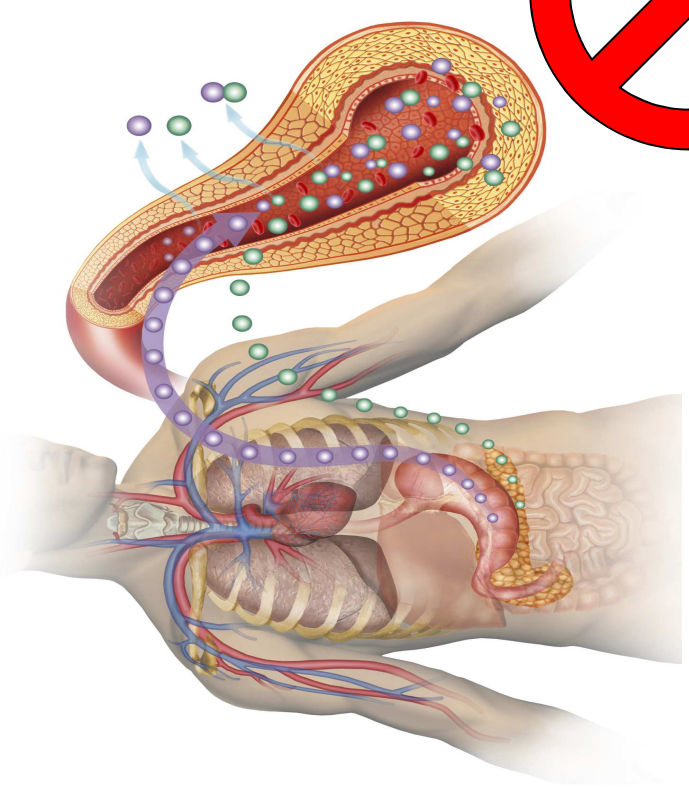
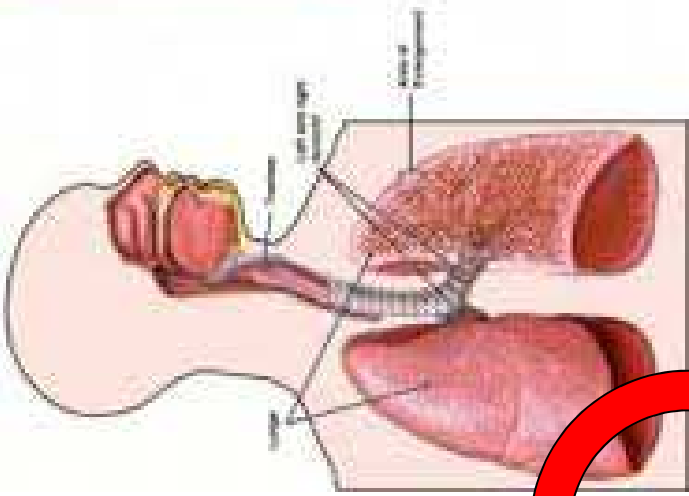
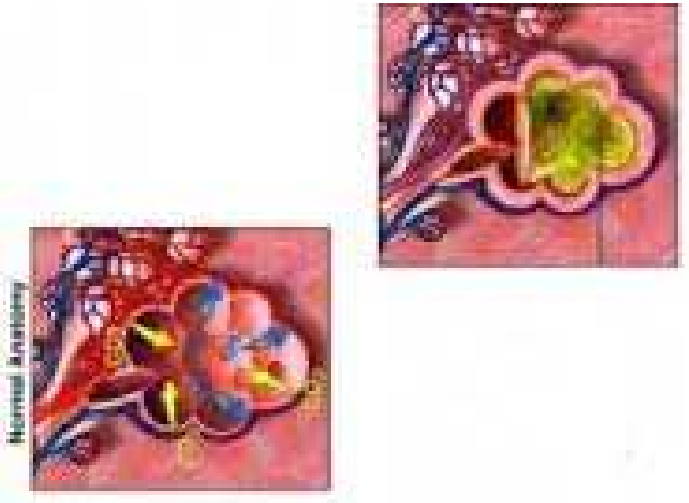
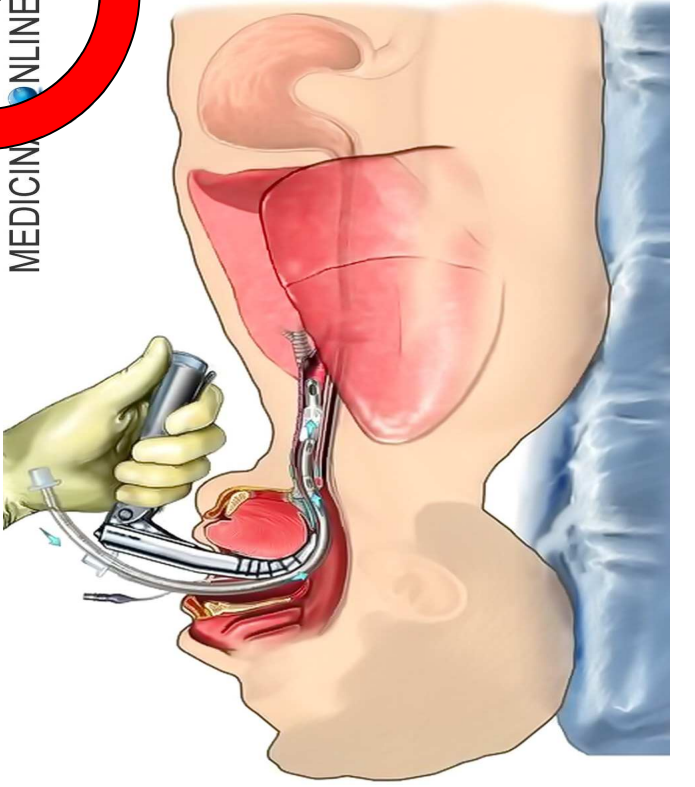
Dalla sedazione lieve all'anestesia generale



- Sedazione lieve
- Sedazione moderata
- Sedazione profonda
- Anestesia generale

SCALA Ramsey (Profondità di sedazione)

Descrizione	Punteggio
Paziente ansioso ed estremamente agitato	1
Paziente cooperante, tranquillo ed orientato spazio-temporalmente	2
Paziente sedato ma ancora in grado di eseguire compiti semplici	3
Paziente assopito ma in grado di rispondere prontamente, anche se in modo non finalistico, a stimoli esterni	4
Paziente assopito e con risposta torpida e molto rallentata anche a stimoli dolorosi	5
Paziente comatoso e non più in grado di fornire alcun tipo di risposta anche a stimoli intensi	6

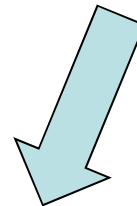
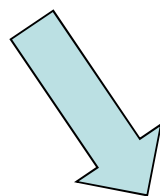


MEDICINE ONLINE

Rischi associati alla Sedazione

**Instabilità emodinamica
(ipertensione, tachicardia,
ipotensione, bradicardia ecc)**

**Rischio di aspirazione di
contenuto gastrico
Insufficienza Respiratoria**



**Arresto cardiaco in assenza
di adeguato trattamento**

- http://salute.regione.emilia-romagna.it/assistenza-ospedaliera/sicurezza-cure/raccomandazionisalaoperatoria.pdf/at_download/file/raccomandazioni-sala-operatoria.pdf
- http://www.salute.gov.it/imgs/C_17_pubblicazioni_1119_allegato.pdf.

**Gruppo di Studio SIAARTI
per la Sicurezza in Anestesia**



**Standard per il monitoraggio in anestesia
(edizione 2012)**

Task Force: G Bettelli, G. Della Rocca, M. Fusari , P. Martorano, P. Mastronardi, M.Solca, G. Torri

Gruppo di Studio Sicurezza in Anestesia: E. Adrario, G. Arena, M. Astuto, G. Bettelli, E. Calderini, A. De Gasperi, M. Fusari, Y Leykin, L. Lorenzini, L. Lubatti, C. Pace, L. Piazza, C. Pontecorvo, R. Rago, I. Salvo, M. Sammartino, M. Solca, V. Sonzogni, S. Taddei, G. Torri

Farmaco ideale in analgo-sedazione: caratteristiche

- Efficace effetto sedativo e/o analgesico
- Rapido on-offset, senza metaboliti attivi, che assicura rapida reversibilità d'azione per:
- Modulare la profondità della sedazione
- Permettere la dimissione del paziente
- Ridotta depressione funzione respiratoria
- Minimo effetto cardiocircolatorio collaterale
- (Costo contenuto)

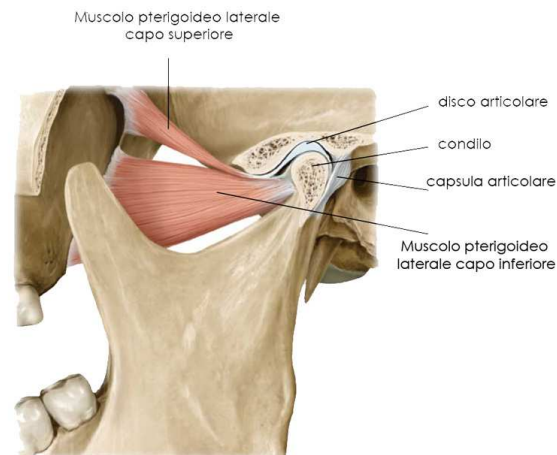
Farmaci anestetici

Analgesici morfiniti

- Fentanil
- Remifentanil

Sedativo-ipnotici

- Midazolam
- Propofol
- Dexmedetomidina



Sedazione Target Controlled Infusion

- Tecnica utilizzata per infondere Propofol o Remifentanil in infusione continua
- Permette, inserendo i dati antropometrici del paziente, di calcolare e infondere la dose necessaria per raggiungere e saturare il **sito effetore cerebrale**.
- Principale vantaggio: evitare l'accumulo e la depressione respiratoria
- Dosaggio per il Propofol: 0.8-4.0 mcg/ml (Schnider)
- Dosaggio per il Remifentanil: 1.5-3 ng/ml (Minto)



Sedazione con Dexmedetomidina

(PTR n. 205-CRF 13/02/2019; Borr J et al. Clinical Practice Guidelines for management of pain, agitation and delirium in adult patients in the Intensive Care Unit. Crit Care med 2013; 41: 263-306)

- DEX: agonista selettivo α_2 adrenergico che inibisce il rilascio di NA nelle terminazioni simpatiche e nel Locus Coeruleus.
- Si utilizza in infusione continua, No boli target
- Effetto sedativo-ipnotico, anche se coesiste Insuff. Epatica o Renale.
- Può dare bradicardia. Non ha effetto analgesico.
- Target: 0.2-1.4 mcg/Kg/h



- **Dexmedetomidine as an Additive to Local Anesthesia: A Step to Development in Dentistry.**

- [Singh V1](#), [Thepra M2](#), [Kirti S2](#), [Kumar P3](#), [Priya K2](#).

- **Author information**

- 1 Head, Department of Oral and Maxillofacial Surgery, Post Graduate Institute of Dental Sciences, Rohtak, India. Electronic address: drvirendrasingh1@yahoo.co.in.
- 2 Resident, Post Graduate Institute of Dental Sciences, Rohtak, India.
- 3 Senior Professor, Department of Anaesthesiology, Post Graduate Institute of Medical Sciences, Rohtak, India.

- **Abstract**

- **PURPOSE:**

- The study aimed to compare the effect of dexmedetomidine added to lidocaine against epinephrine added to lidocaine on local anesthetic potency and to look for future prospects of dexmedetomidine as an additive to local anesthesia in dentistry.

- **MATERIALS AND METHODS:**

- The study included 25 healthy volunteers in whom extraction of all first premolars was scheduled as part of their orthodontic treatment plan. In this split-mouth, double-blind, crossover, randomized controlled trial, patients were randomized into 2 groups: Group 1 received injection lidocaine plus dexmedetomidine, and group 2 was administered lidocaine plus epinephrine. Patients were assessed for the onset of action of anesthesia, duration of analgesia, pain perception, and vital signs.

- **RESULTS:**

- The mean values (\pm standard deviations) for the onset of anesthetic action in groups 1 and 2 were 113 ± 24.9 and 141 ± 34.8 seconds, respectively, for the mandible. For the maxilla, the mean values were 113 ± 24.9 seconds for group 1 and 165 ± 43.8 seconds for group 2. The duration of anesthesia was longer in group 1 (lidocaine plus dexmedetomidine), in which the requirement for the first analgesic on request was seen after a longer time interval, when compared with group 2 (lidocaine plus epinephrine). Pain perception elicited statistically significant results with less perception of pain in group 1 (lidocaine plus dexmedetomidine). The vital parameters remained stable, and the results were not statistically significant.

- **CONCLUSIONS:**

- In this study, we observed that the addition of dexmedetomidine to lidocaine for maxillary and mandibular nerve blocks significantly prolonged the block duration and shortened the onset of action, as well as improved postoperative analgesia in terms of the need for fewer analgesics in the postoperative period. Furthermore, the vital parameters remained stable and no complications were encountered. The findings were supportive of the use of dexmedetomidine as an adjunct to local anesthetics in dental procedures.
- Copyright © 2018 American Association of Oral and Maxillofacial Surgeons. Published by Elsevier Inc. All rights reserved.

- [Drug Des Devel Ther.](#) 2019 Apr 23;13:1301-1310. doi: 10.2147/DDDT.S194894. eCollection 2019.
- **Safety and sedative effect of intranasal dexmedetomidine in mandibular third molar surgery: a systematic review and meta-analysis.**

- [Liu S](#)1,2, [Wang Y](#)1,2, [Zhu Y](#)1,2, [Yu T](#)3, [Zhao H](#)1,2.

- **Author information**

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- 2 Department of Oral and Maxillofacial Surgery, School of Stomatology, Shandong University, Jinan, Shandong 250012, People's Republic of China, 920935422@qq.com.
- 3 partment of Oral and Maxillofacial Surgery, Jinan Stomatological Hospital, Jinan, Shandong 250012, People's Republic of China, lspwy1314@163.com.

- **Abstract**

- **Objective:**

- The focus of this meta-analysis was to assess the sedative effect and safety of intranasal dexmedetomidine (Dex) in mandibular third molar surgery.

- **Methods:**

- The PubMed/Medline, Web of Science, Cochrane Library, and China National Knowledge Infrastructure databases were searched for studies published until May 1, 2018. Eligible studies were restricted to randomized controlled trials (RCTs) and controlled clinical trials. The evaluation indicators mainly included the bispectral index, observer assessment of alertness/sedation scale, systolic blood pressure, and heart rate. Data for each period in the Dex and control groups were pooled to evaluate its sedative effect and safety.

- **Results:**

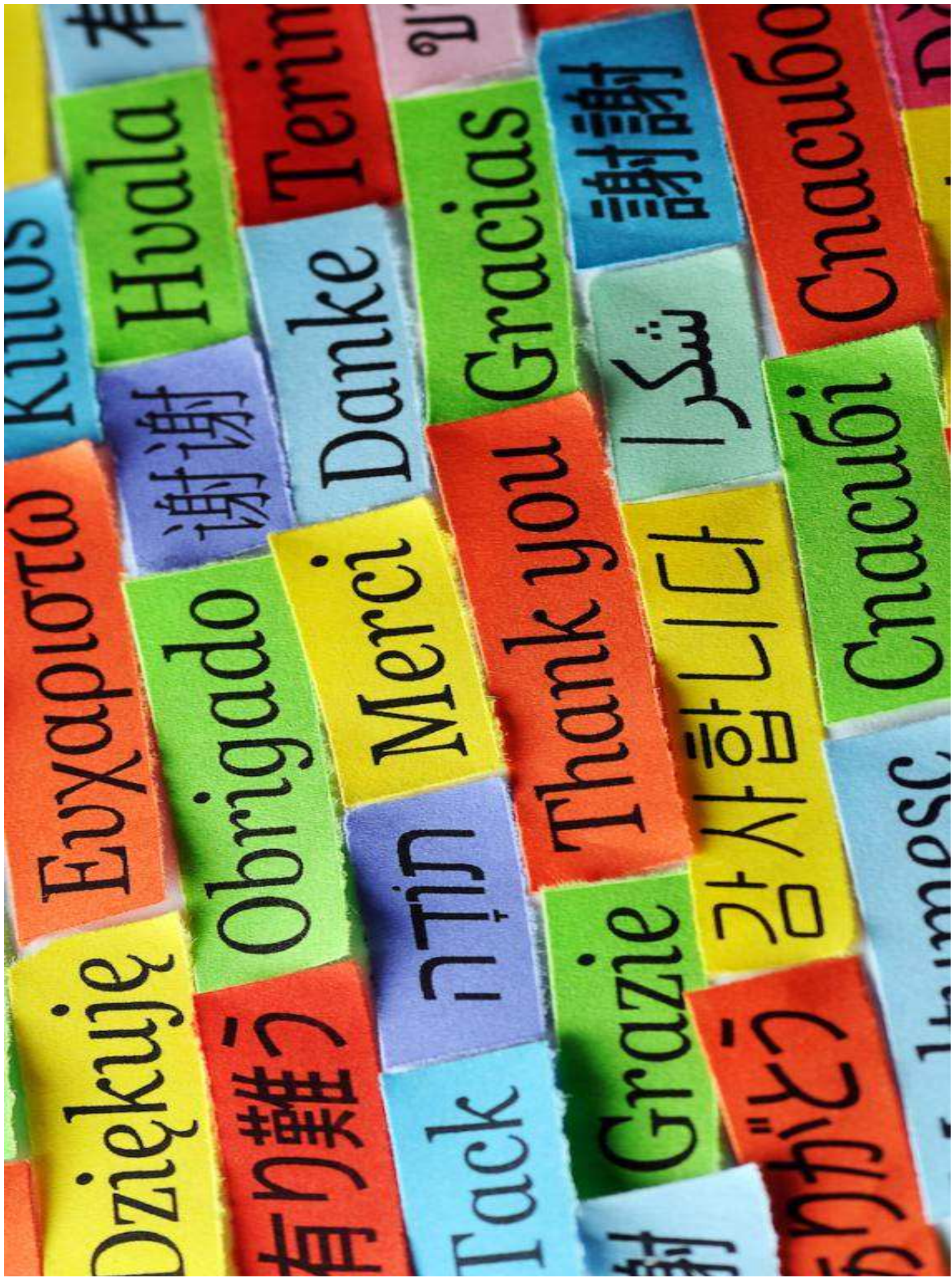
- Five RCTs met the inclusion criteria. This study included 363 patients: 158 patients received intranasal inhalation of Dex before surgery, and 158 patients were negative controls. The pooled results showed a good sedative effect during tooth extraction when intranasal inhalation of Dex was performed 30 minutes before third molar extraction (assessment of alertness/sedation, Dex vs control SMD -1.20, 95% CI -1.73 to -0.67, $I^2=0$, $P=0.95$; bispectral index, Dex vs control SMD -11.68, 95% CI -19.49 to -3.87, $I^2=89%$; $P=0.0001$), and parameters returned to normal within 90 minutes after inhalation. During the operation, blood pressure and heart rate decreased to some extent, but the decreases did not exceed 20% of the baseline, and all patients returned to normal conditions within 90 minutes after inhalation.

- **Conclusion:**

- Intranasal inhalation of Dex 30 minutes before third molar extraction can provide a good sedative effect, and large-sample multicenter RCTs are needed to evaluate the analgesic effect of Dex.

- **KEYWORDS:**

- intranasal dexmedetomidine; mandibular third molar; meta-analysis; sedation



Kudos

Ευχαριστώ

Dziękuję

Hvala

谢谢

Obrigado

有り難う

Terima

Danke

Merci

תודה

Tack

Gracias

謝謝

Thank you

Grazie

ありがとう

Спасибо

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