

Importancia de un control analgésico óptimo: cronificación del dolor

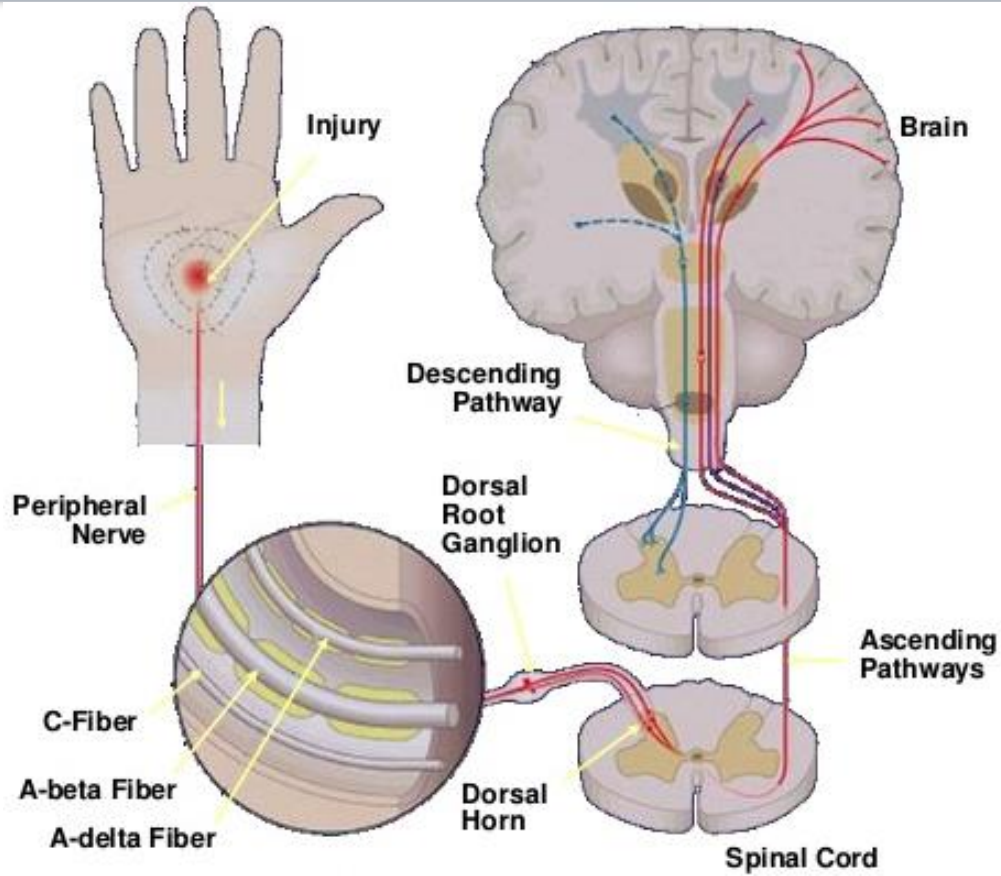
Dr. Juan José Poza

Neurología

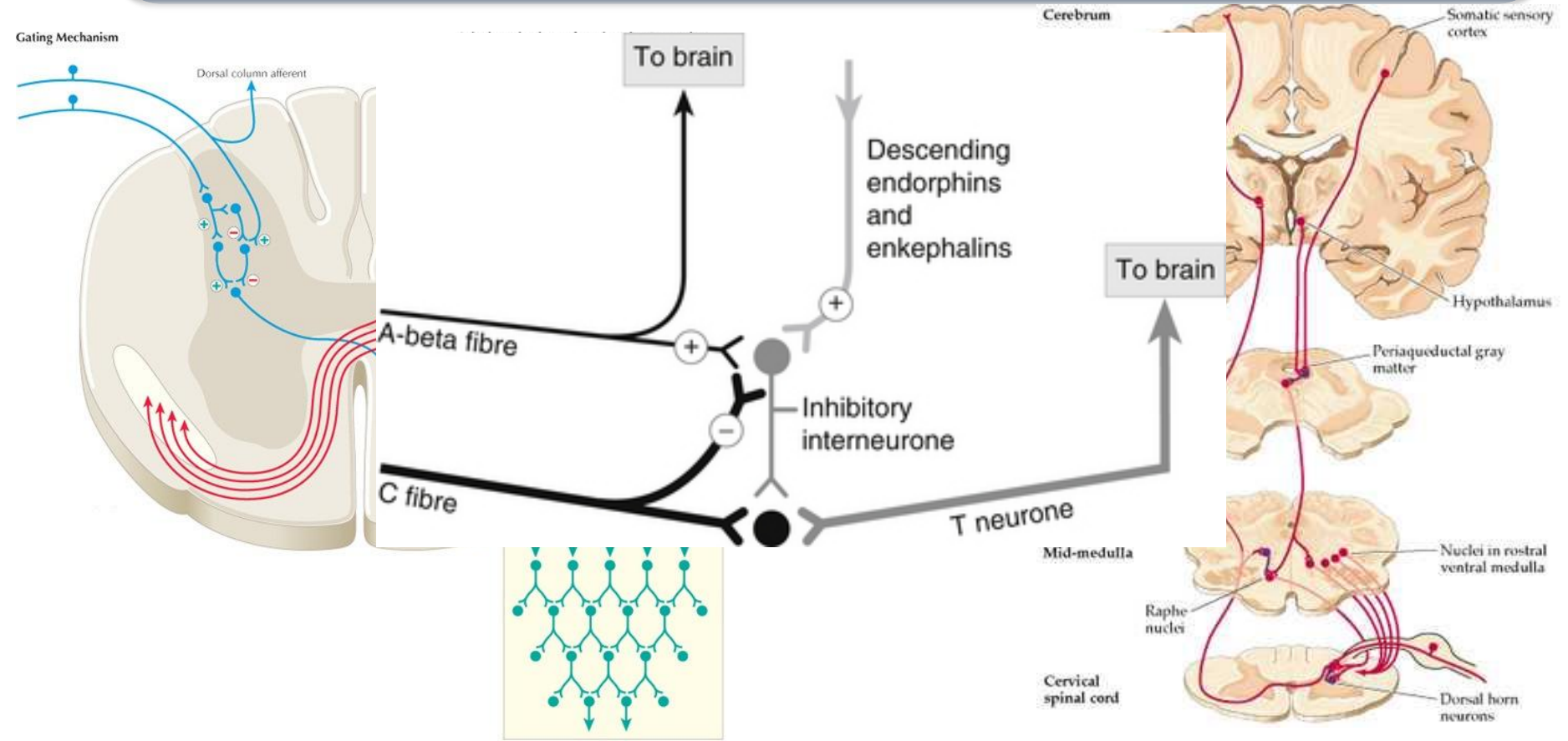
Hospital Universitario Donostia

San Sebastián

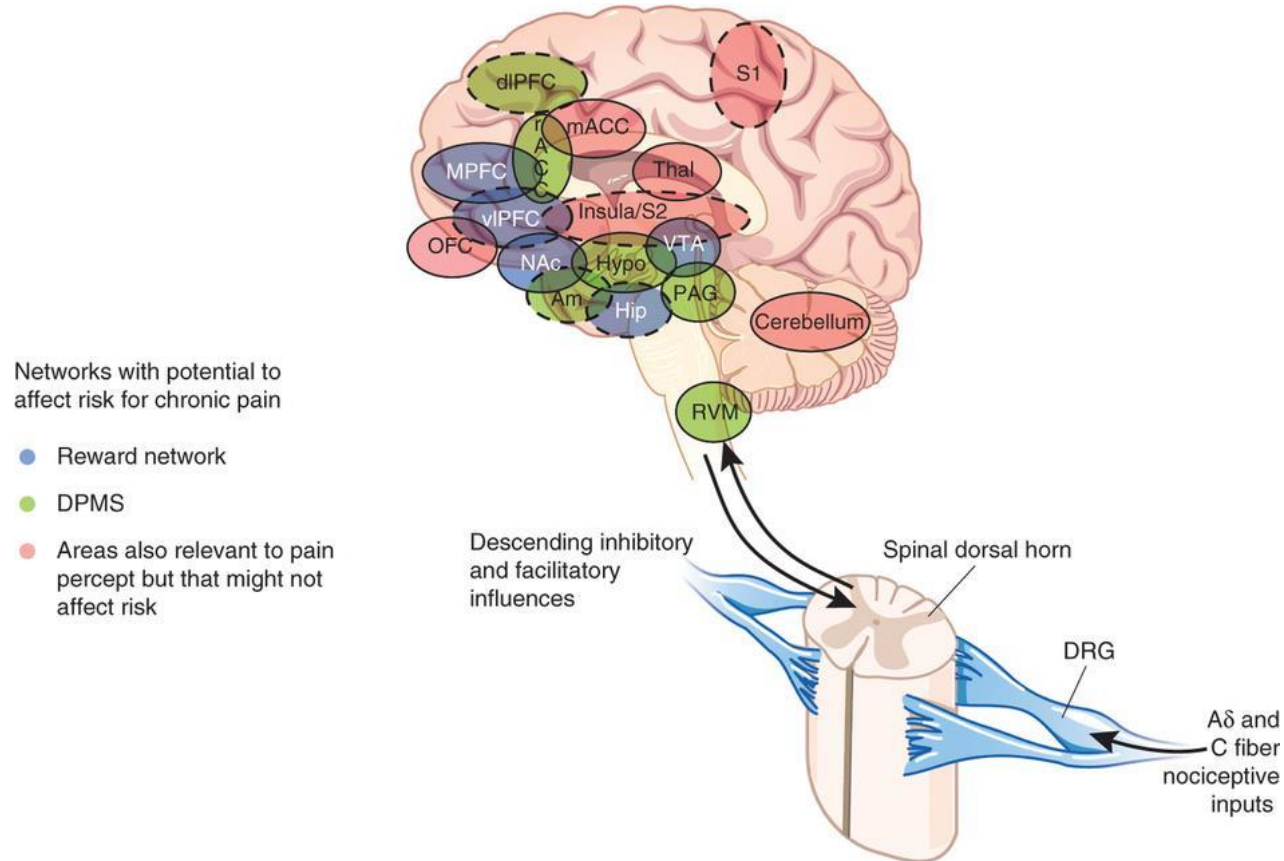
Transmisión del dolor



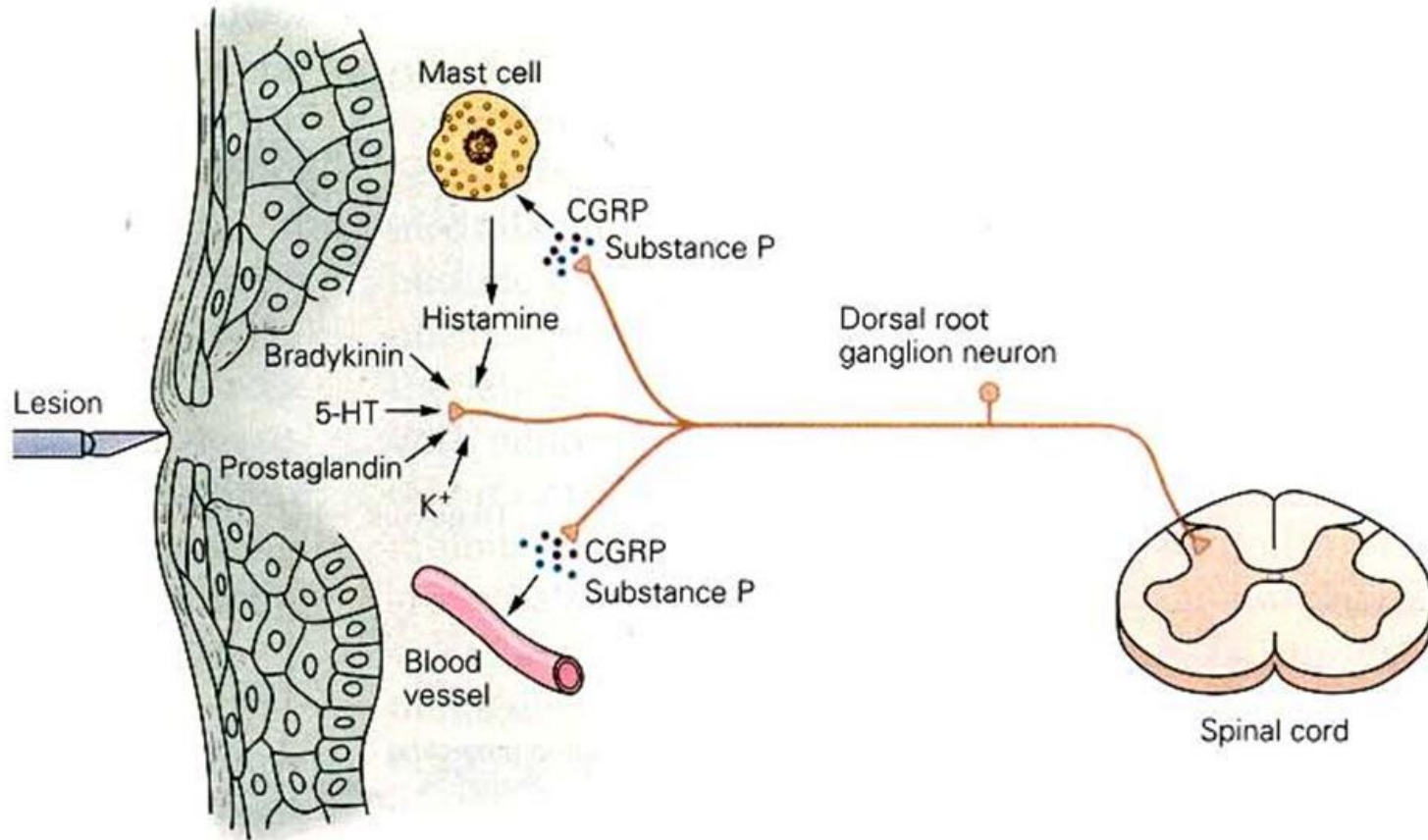
Puertas del dolor



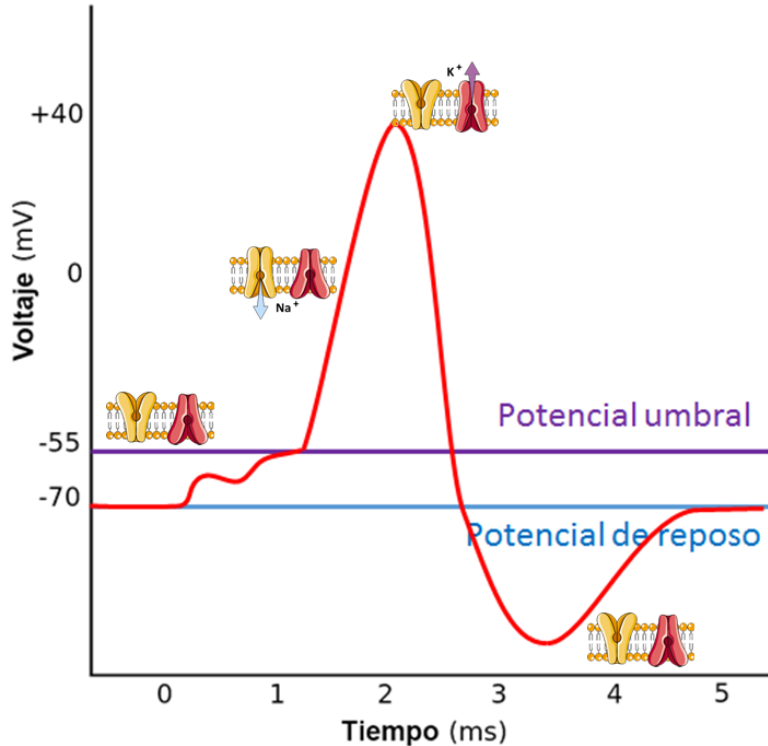
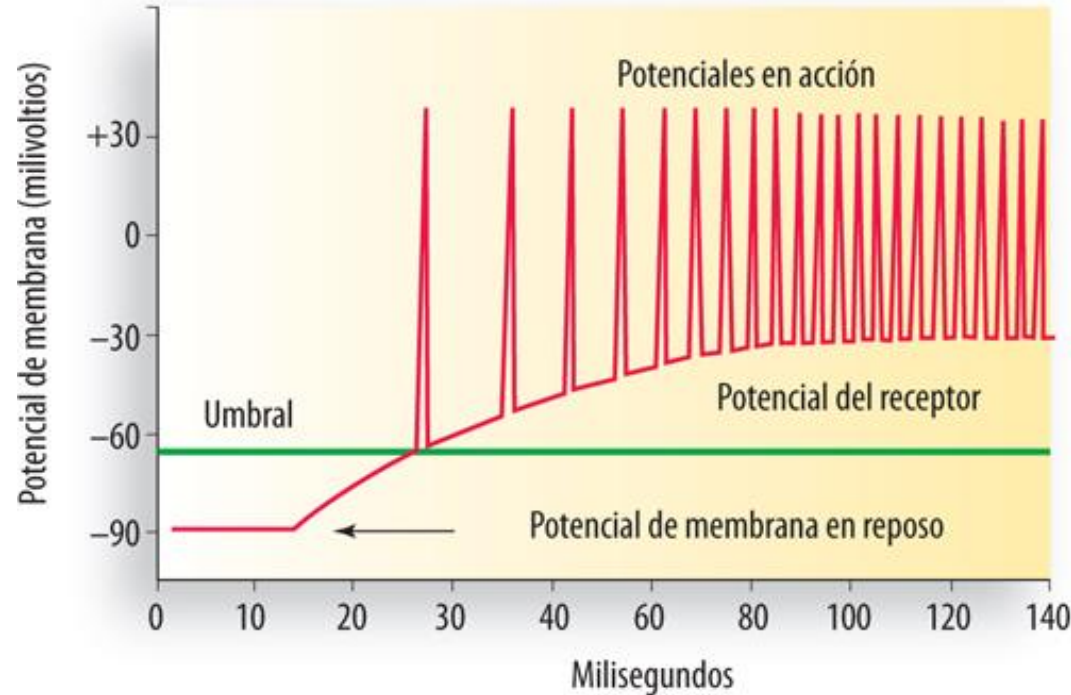
Puertas del dolor



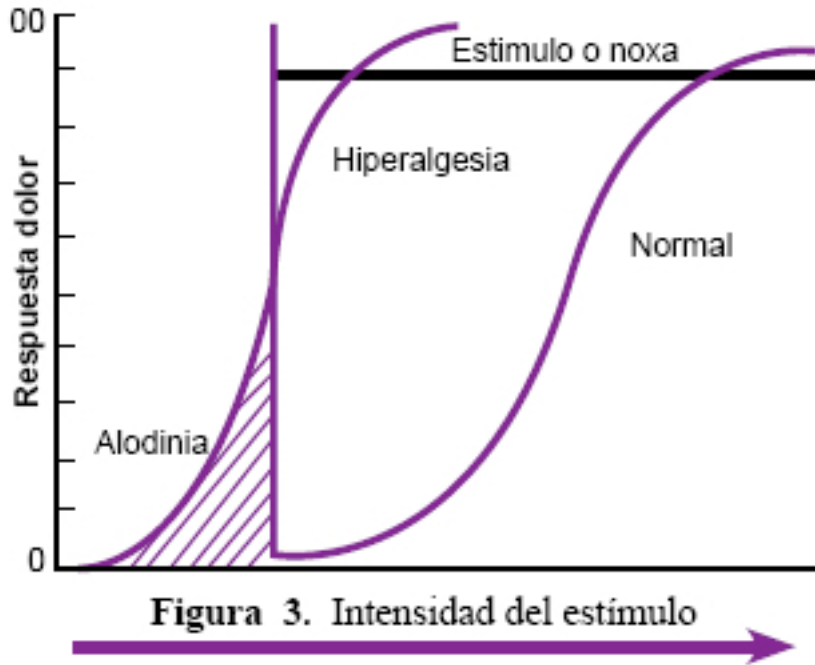
Sensibilización periférica al dolor



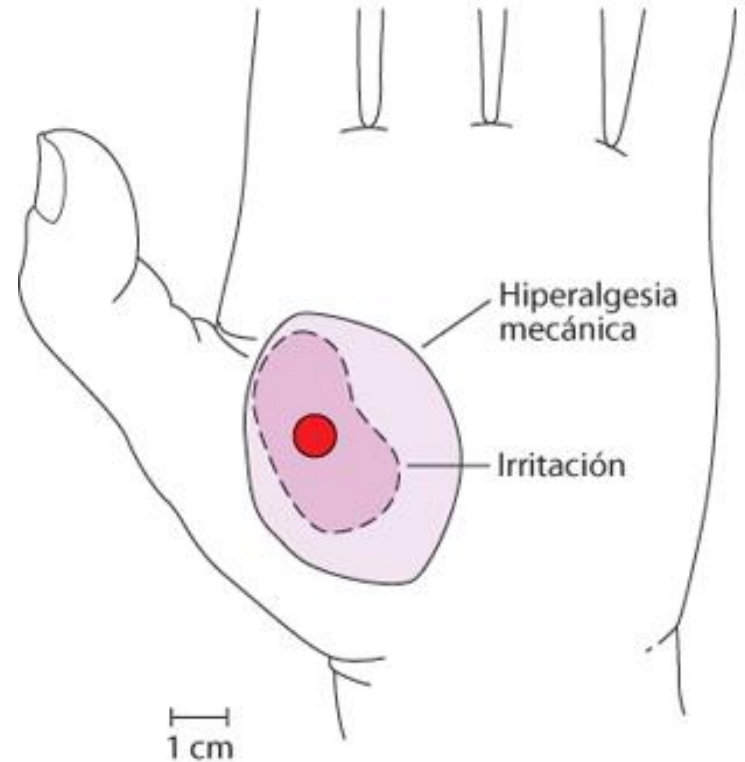
Amplificación de la respuesta



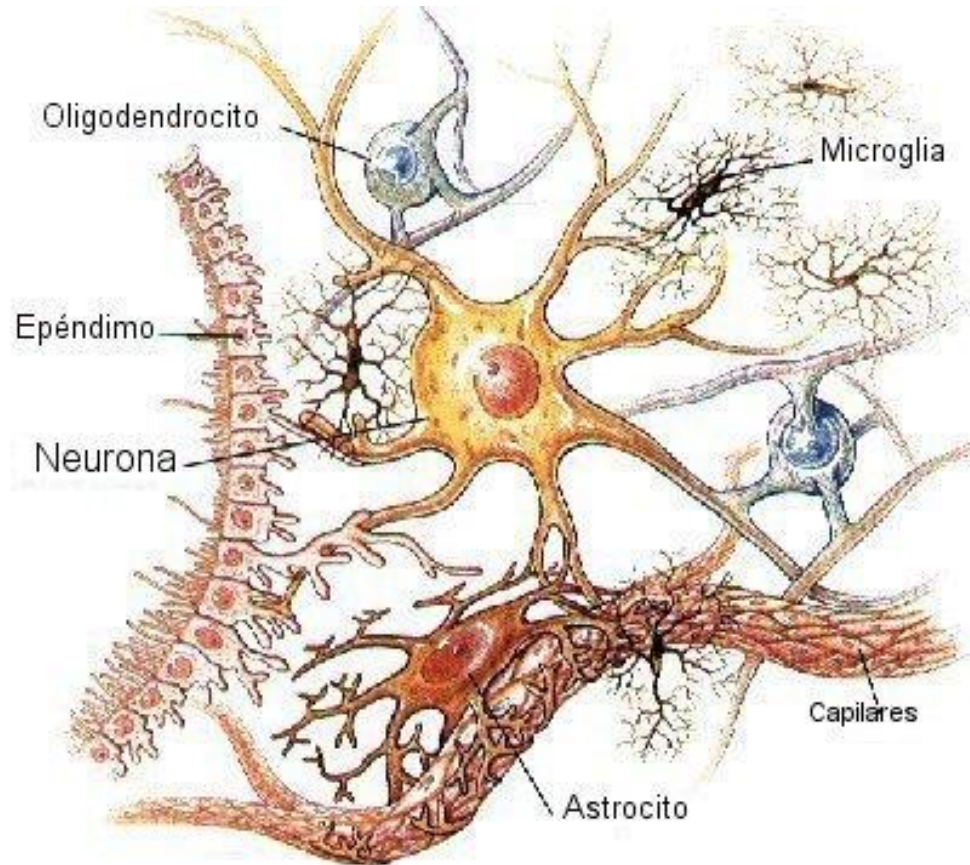
Hiperalgesia y alodinia



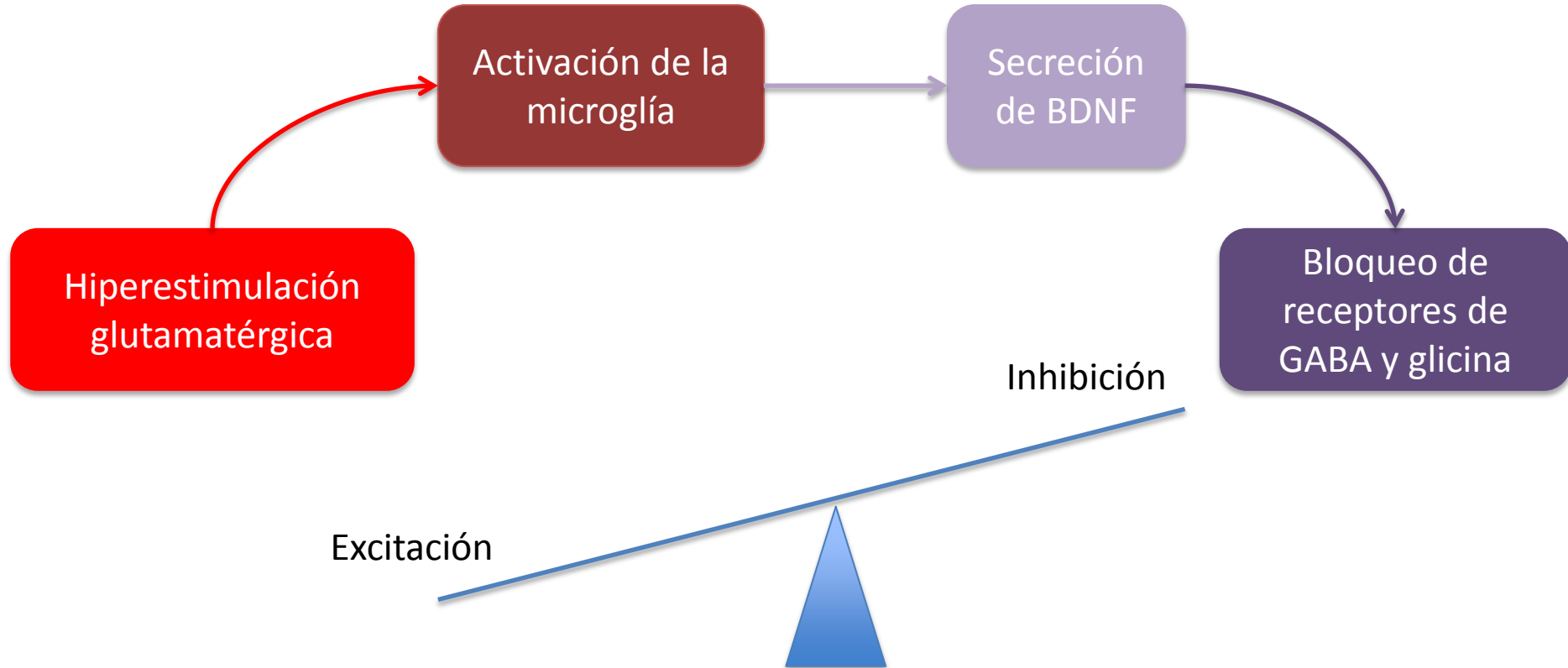
Martin W et al. Curr Biol 1998;8 : R 525-7



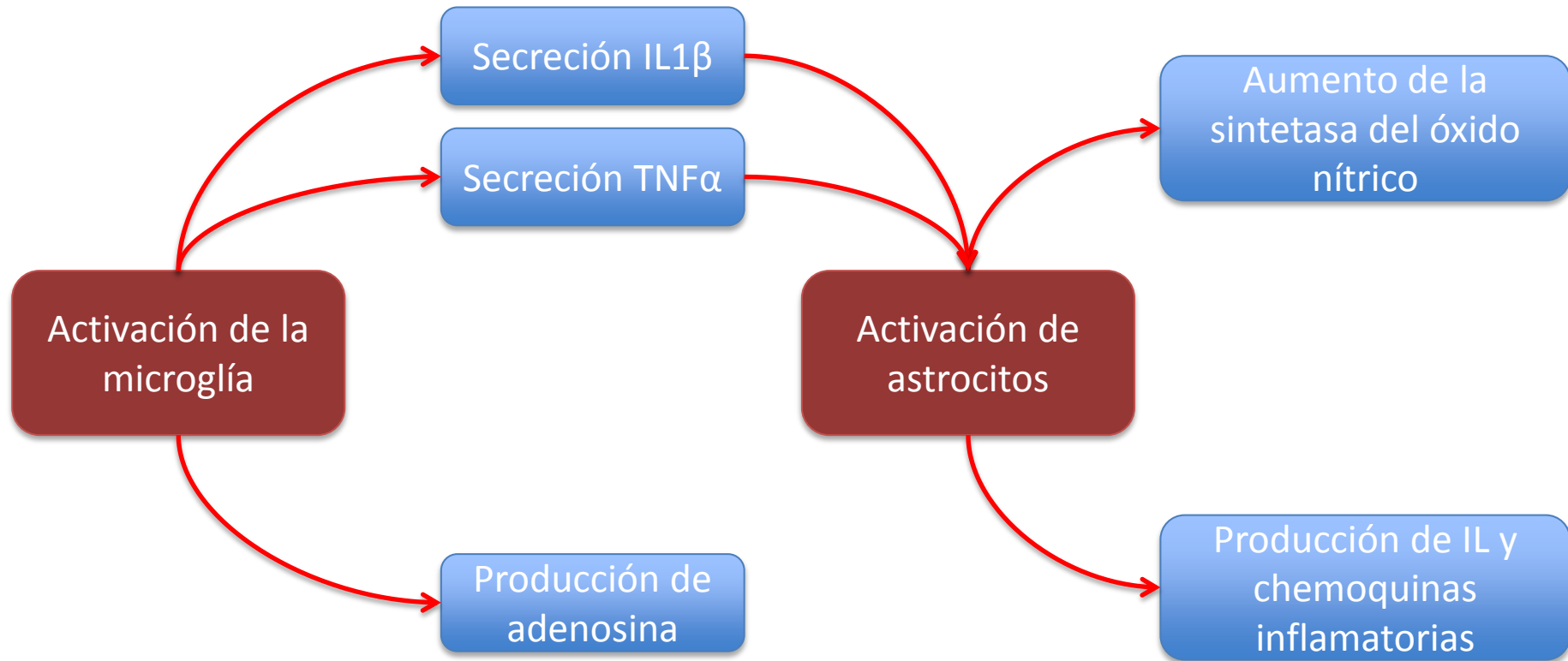
Neuronas y glía



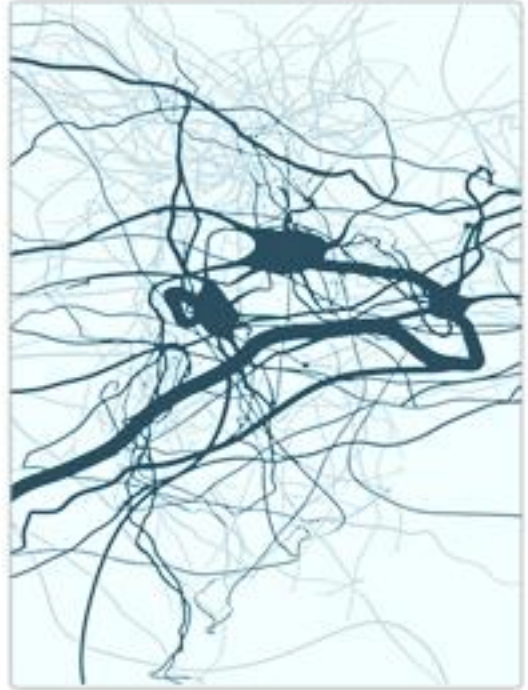
Microglía y potenciación a largo plazo



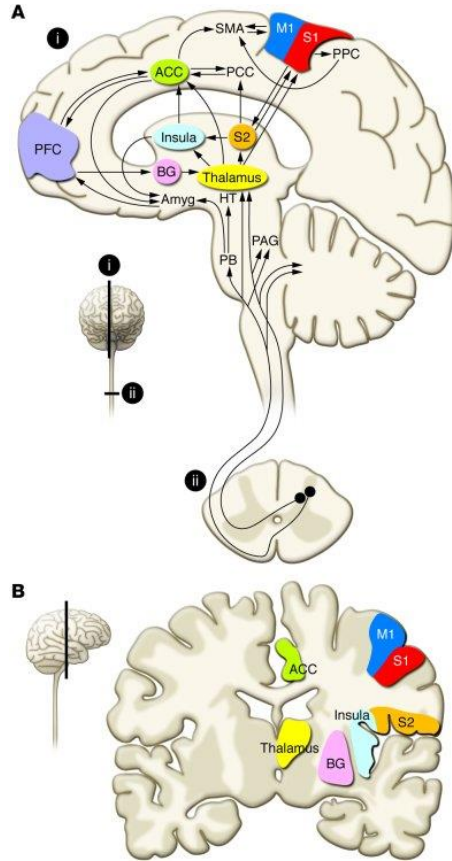
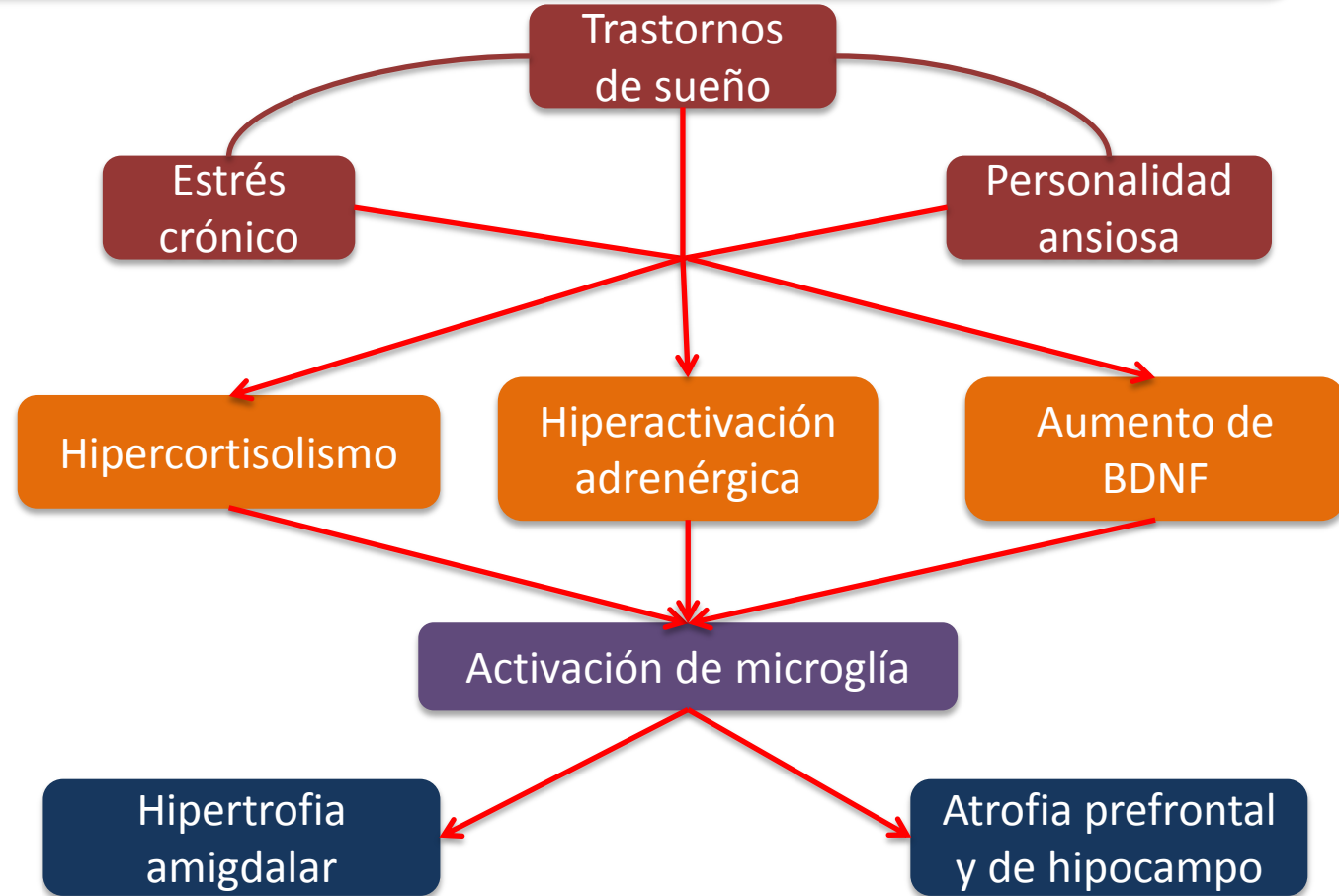
Glía y potenciación a largo plazo



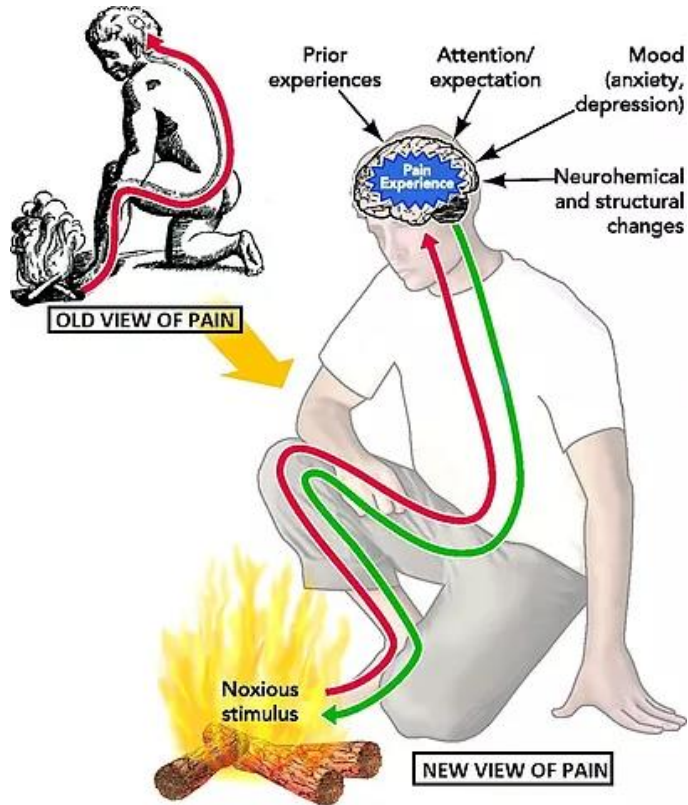
Reorganización sináptica



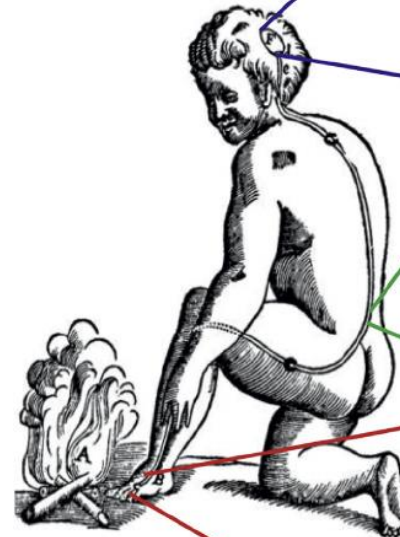
Modificación cerebral a largo plazo



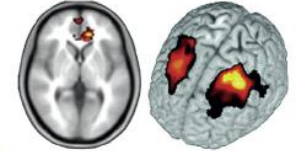
Remodelación del SNC



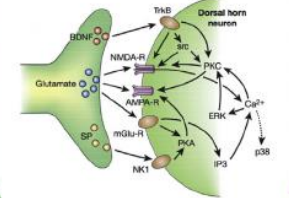
Descartes, 1644



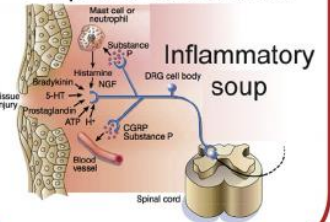
Cortical reorganization



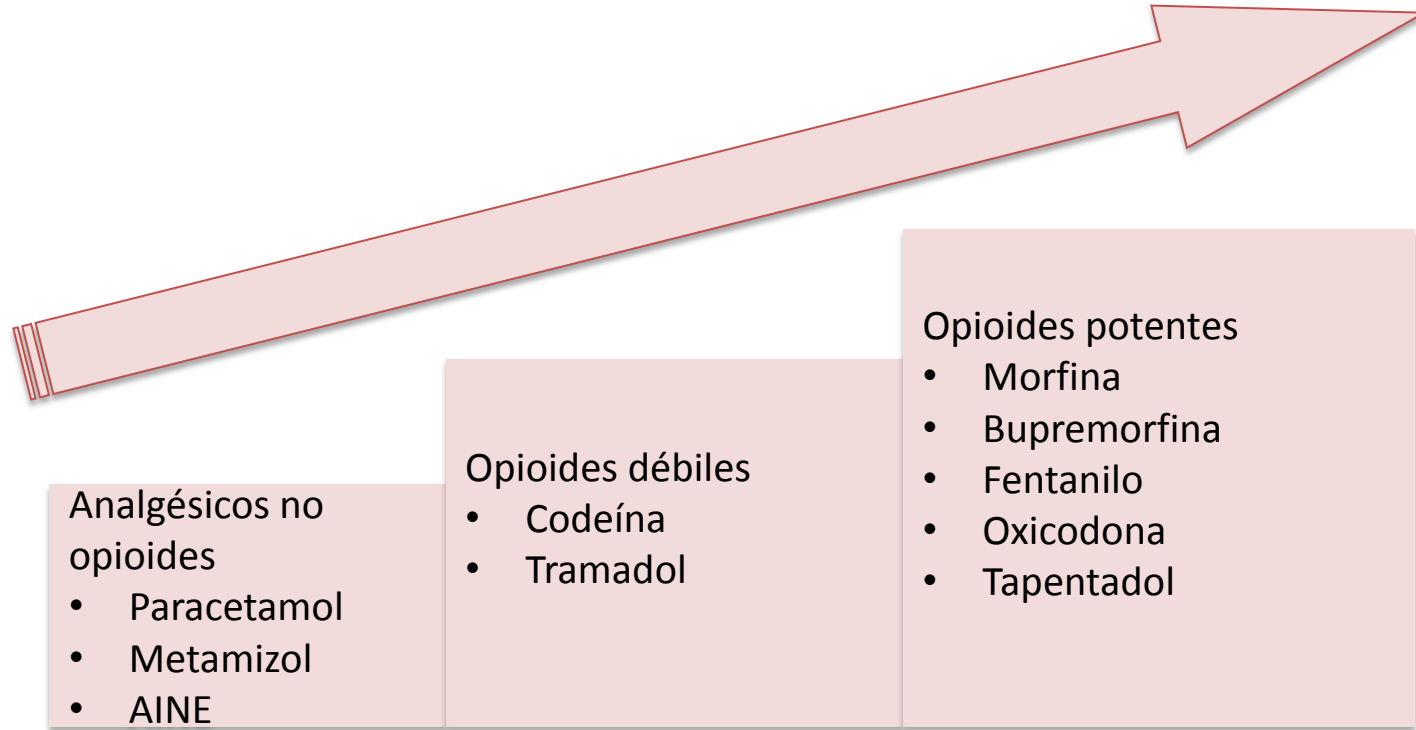
Central sensitization



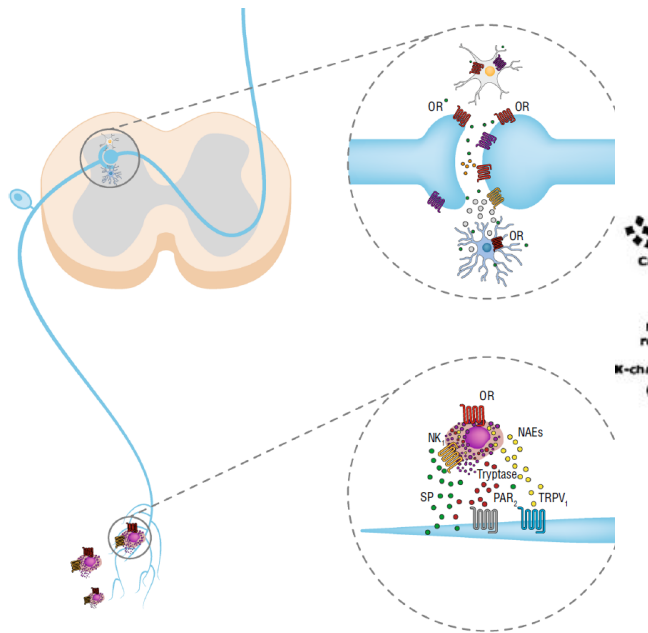
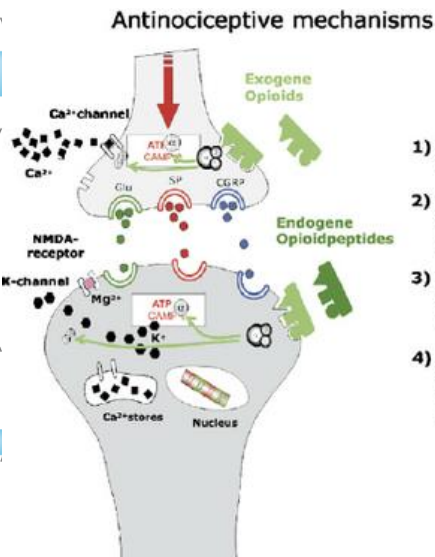
Peripheral sensitization



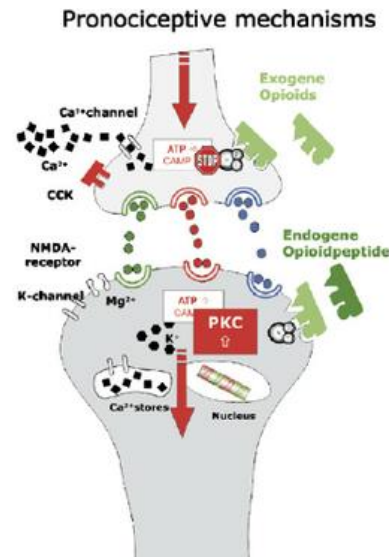
¿Escalonado o proporcionado?



Hiperalgesia inducida por opioides



- 1) Inhibition of Calcium channels
- 2) Inhibition of adenylylcyclase (cAMP↓)
- 3) Activation of Sodium channels (Hyperpolarisation)
- 4) Activation of inhibitory enkephalinergic interneurons



- 1) Descending facilitation
- 2) Activation of adenylylcyclase (cAMP↑)
- 3) Protein kinase C ↑
- 4) NMDA-receptor activation
- 5) Receptor-internalsation (?)

Is gabapentin effective and safe in open hysterectomy? A PRISMA compliant meta-analysis of randomized controlled trials



Characteristics of included studies.

Clinical trials	Age(Y)	Location	No. of patients gabapentin/control	Dose of gabapentin	Time of gabapentin administration
Turan 2004	51.5	Turkey	25/25	1200 mg preoperatively	1 h preoperatively
Durmus 2007	48.0	Turkey	25/25	1200 mg preoperatively	1 h preoperatively
Sen 2009	46	Turkey	20/20	1200 mg preoperatively	1 h preoperatively
Ghai 2011	44.5	India	30/30	900 mg preoperatively	1–2 h preoperatively
Behdad 2012	47.0	Iran	30/31	300 mg preoperatively	2 h preoperatively
Ajori 2012	47.8	Iran	69/69	600 mg preoperatively	1 h preoperatively
Frouzanfard 2013	44.2	Iran	25/25	1200 mg preoperatively	1 h preoperatively
Khan 2013	44	Pakistan	35/35	1200 mg preoperatively	2 h preoperatively
Joseph 2014	43.9	India	25/25	600 mg preoperatively	2 h preoperatively
Karbic 2014	No data	Croatia	30/30	600 mg preoperatively	1 h preoperatively
Amminikutty 2015	No data	India	40/40	300 mg preoperatively	1.5 h preoperatively
Badawy 2015	46.5	Egypt	19/19	800 mg preoperatively	1 h preoperatively
Batista 2015	44.7	Panama	36/36	600 mg preoperatively	2 h preoperatively
Farzi 2016	47.9	Iran	40/40	300 mg preoperatively	2 h preoperatively

Is gabapentin effective and safe in open hysterectomy? A PRISMA compliant meta-analysis of randomized controlled trials

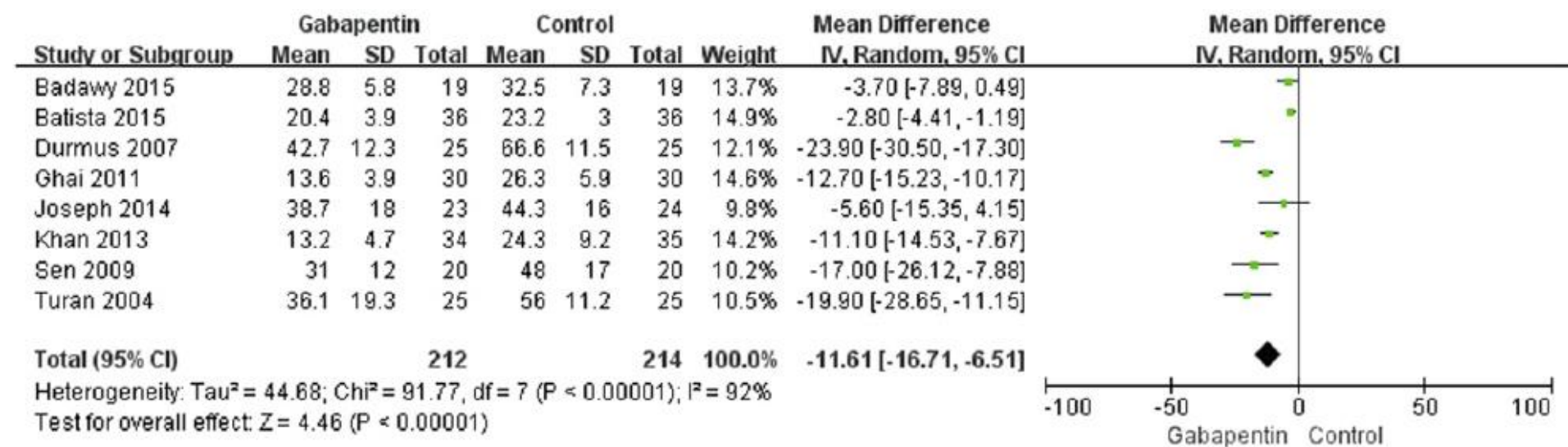


Fig. 3. Forest plot of postoperative narcotic consumption at 24 h between two groups.

Is gabapentin effective and safe in open hysterectomy? A PRISMA compliant meta-analysis of randomized controlled trials

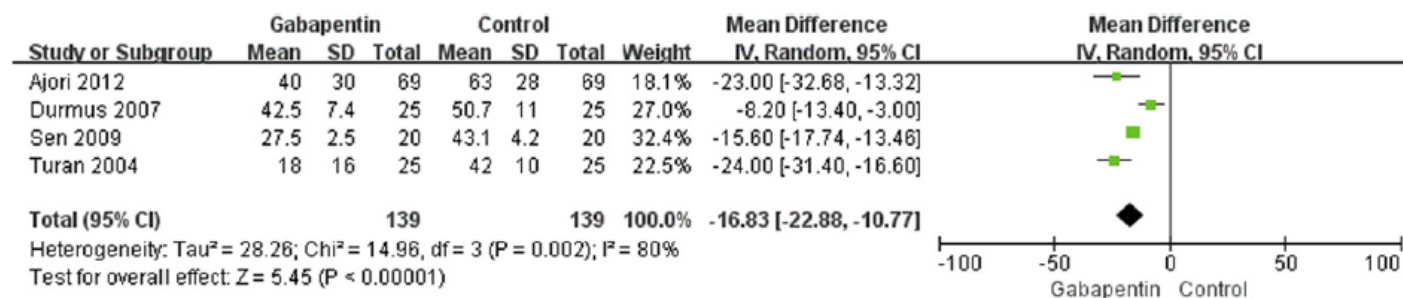


Fig. 4. Forest plot of postoperative VAS at 4 h between two groups.

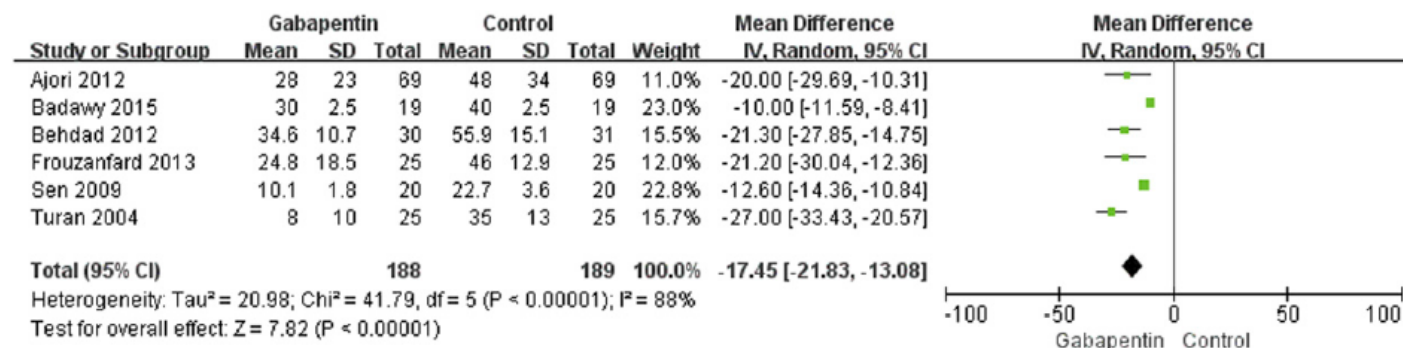


Fig. 5. Forest plot of postoperative VAS at 12 h between two groups.

Is gabapentin effective and safe in open hysterectomy? A PRISMA compliant meta-analysis of randomized controlled trials

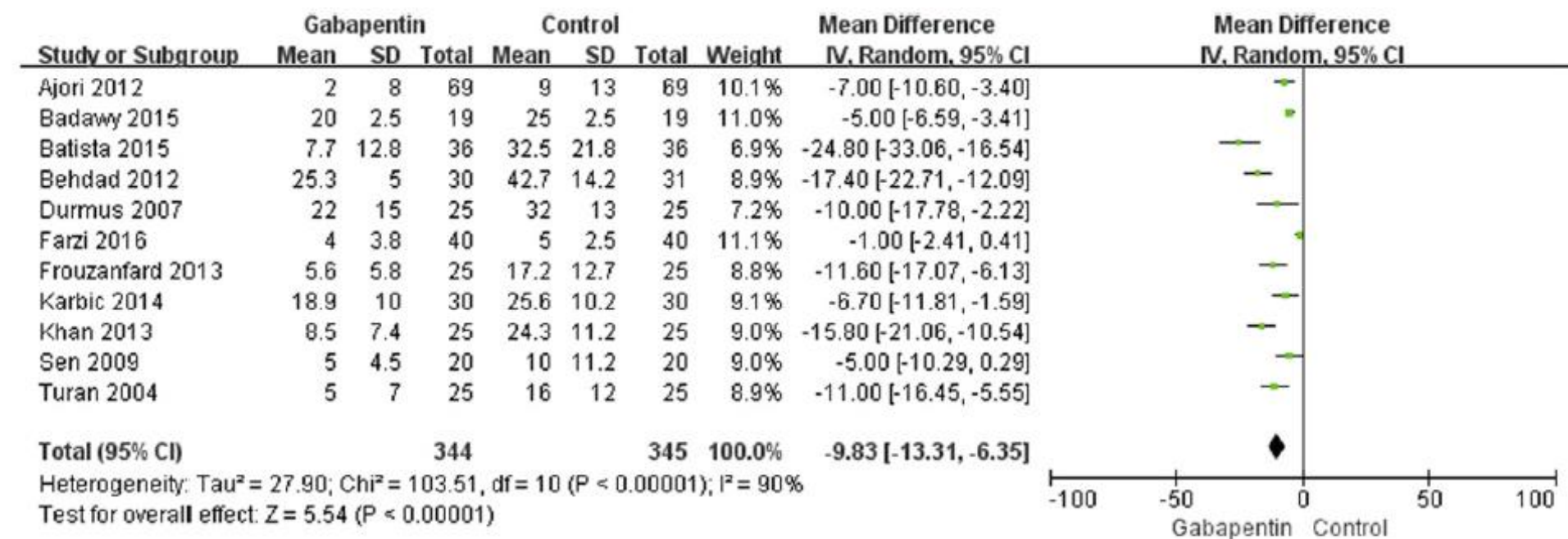
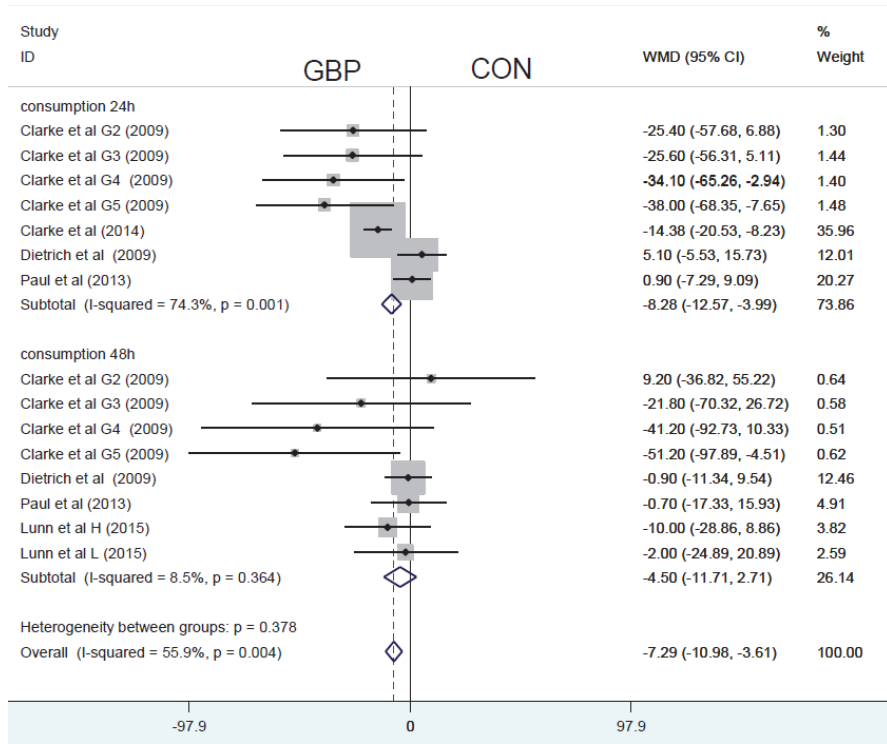


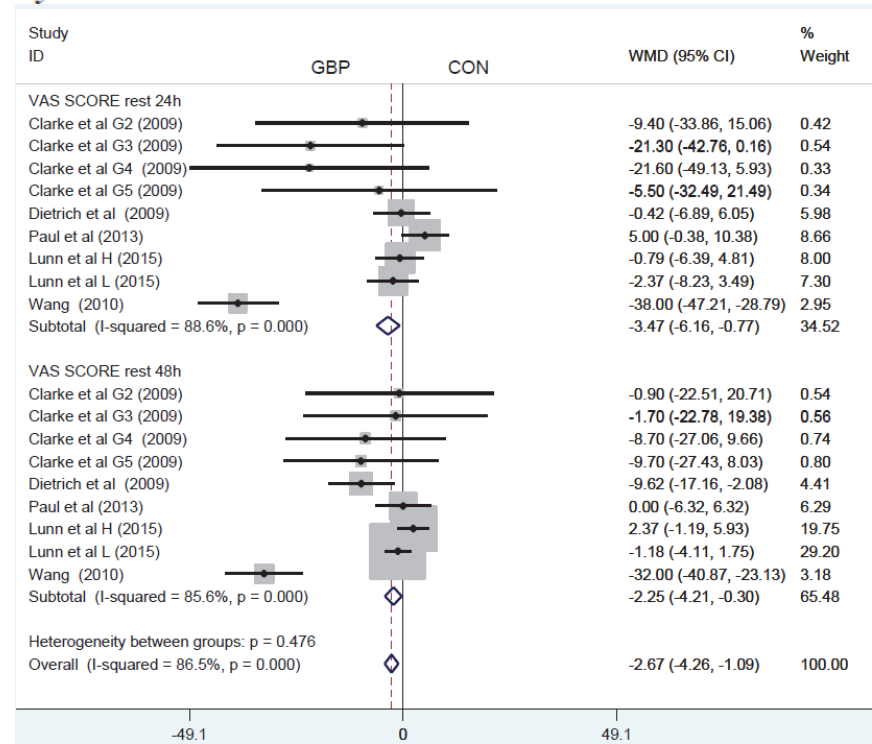
Fig. 6. Forest plot of postoperative VAS at 24 h between two groups.

The Effect of Gabapentin on Acute Postoperative Pain in Patients Undergoing Total Knee Arthroplasty

A Meta-Analysis



The forest plot about the effect of qabapentin on the cumulative morphine consumption at 24 and 48 hours.



The forest plot of visual analogue scale (VAS) score with rest at 24 and 48 hours.

A meta-analysis of the preoperative use of gabapentinoids for the treatment of acute postoperative pain following spinal surgery

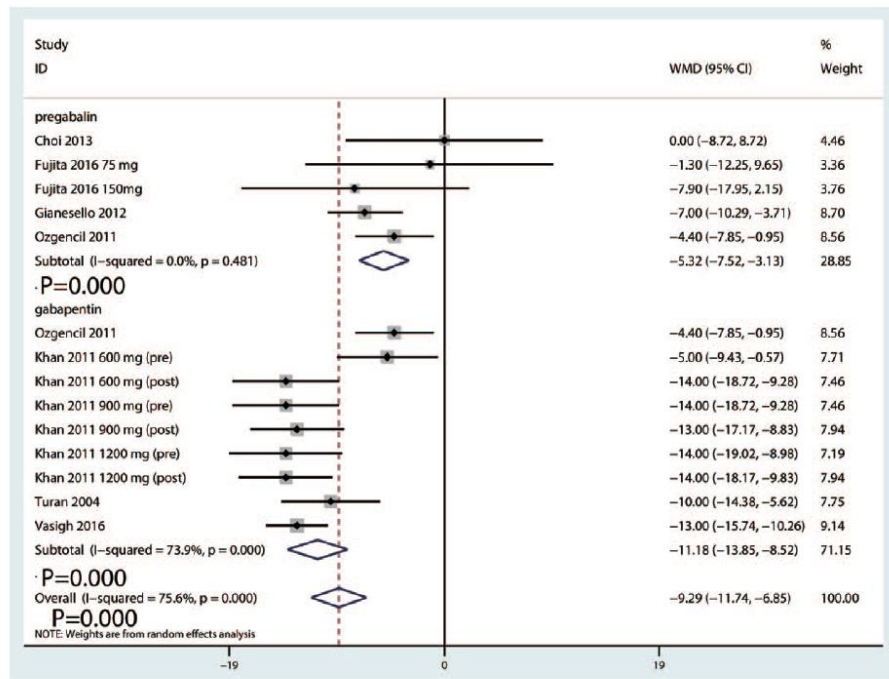
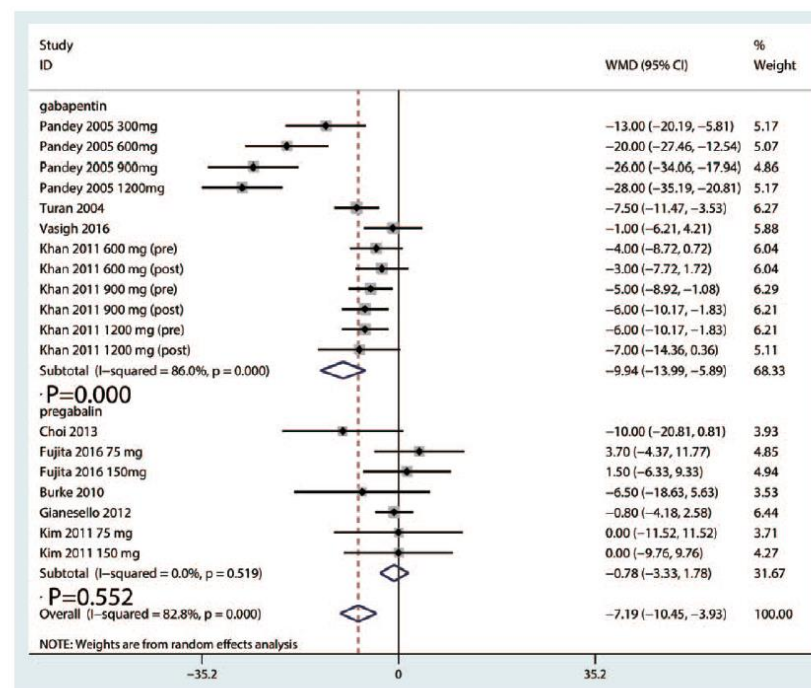


Figure 5. Forest plot comparing VAS at 12h between the gabapentinoids group and the control group. VAS = visual analogue scale.

Figure 6. Forest plot comparing VAS at 24h between the gabapentinoids group and the control group. VAS = visual analogue scale.

A meta-analysis of the preoperative use of gabapentinoids for the treatment of acute postoperative pain following spinal surgery

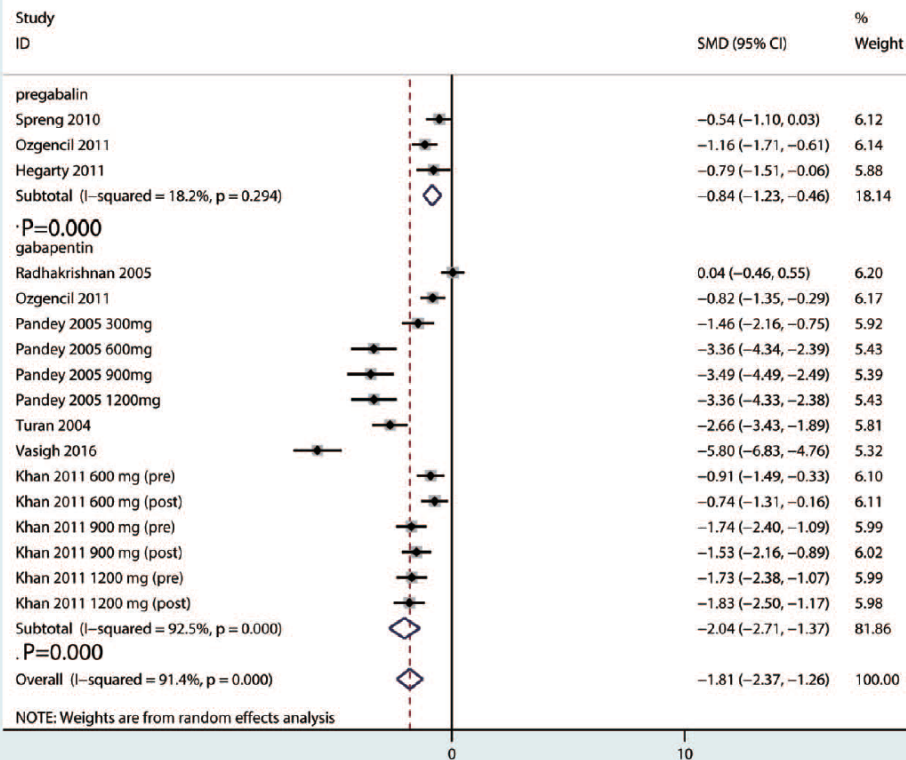


Figure 9. Forest plot comparing cumulative morphine consumption at 24 h between the gabapentinoids group and the control group.

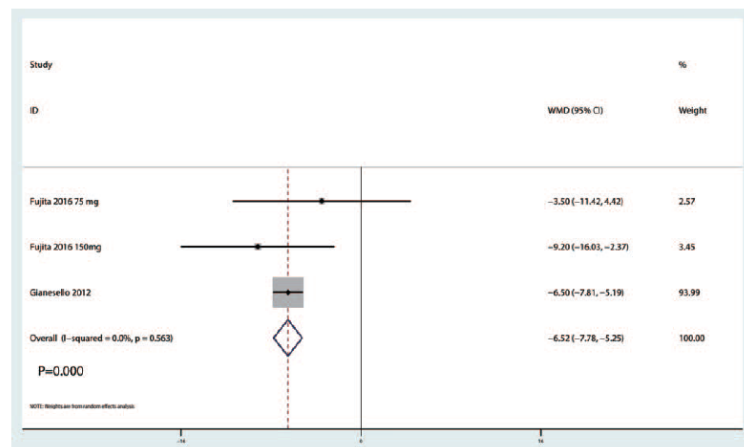
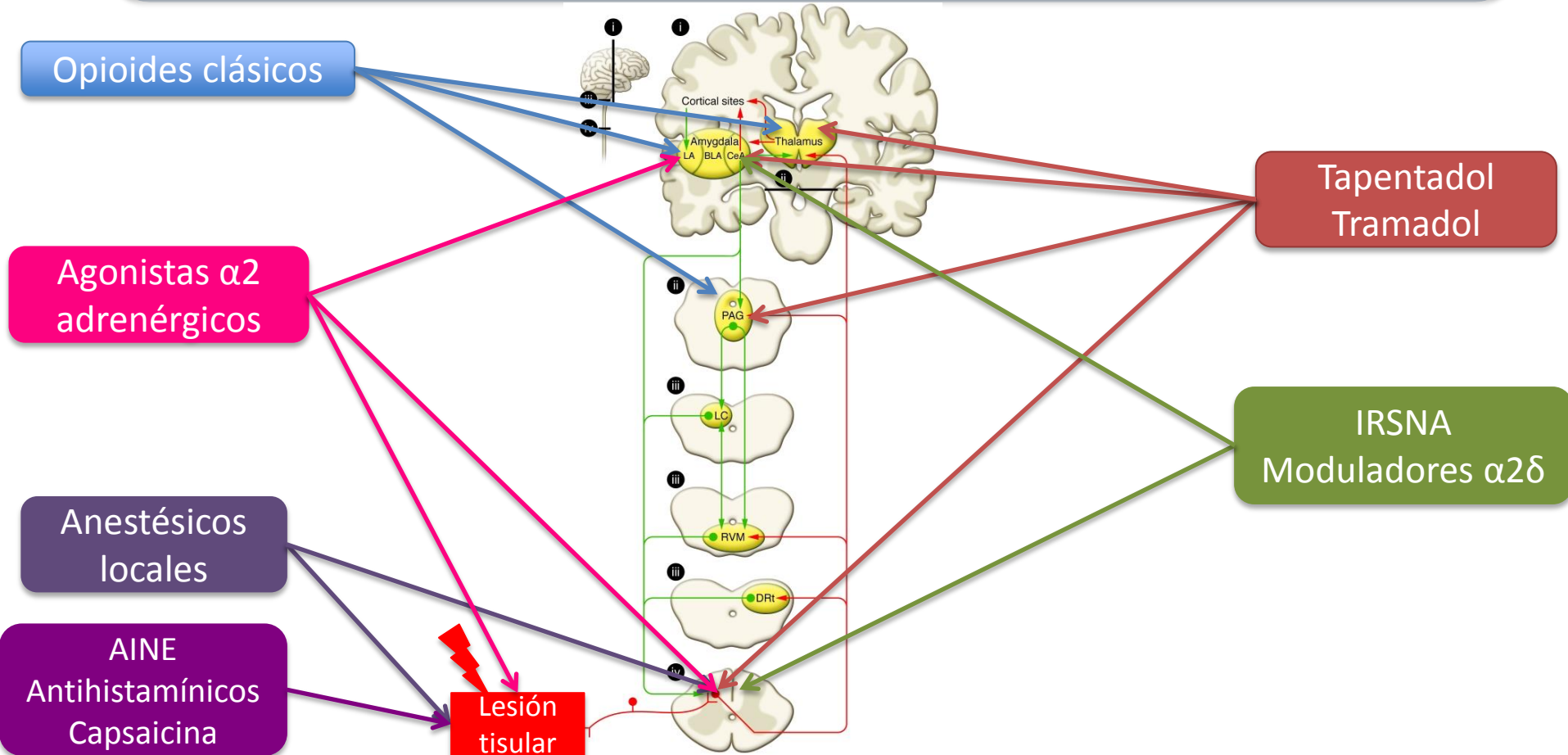


Figure 10. Forest plot comparing cumulative morphine consumption at 48h between the gabapentinoids group and the control group.

Abordaje multimodal



Conclusiones

- El dolor modula el sistema nervioso
- Tratar el dolor con la suficiente energía al inicio para evitar su cronificación
- Combinar dianas terapéuticas