

# Estudios y casos clínicos

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Encontrará información científica de la mayoría de los estudios en nuestra [Base de datos de estudios y casos clínicos](#)

- Mejoría sintomática o evaluación positiva por parte de los autores
- Sin cambio sintomático o evaluación negativa por parte de los autores
- ❖ Empeoramiento de los síntomas

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# Nauseas y vómitos – Quimioterapia por cáncer

## Estudios controlados

### Dronabinol

- Artim R, DiBella N. Tetrahydrocannabinol (THC) plus prochlorperazine (PCZ) for refractory nausea and vomiting (N/V). Proceedings of the American Society for Clinical Oncology 1983;2:84.
- Chang AE, Shiling DJ, Stillman RC, Goldberg NH, Seipp CA, Barofsky I. Delta-9-tetrahydrocannabinol as an antiemetic in cancer patients receiving high-dose methotrexate. Annals of Internal Medicine 1979;91:819-824.
- Chang AE, Shiling DJ, Stillman RC, Goldberg NH, Seipp CA, Barofsky I, Rosenberg SA. A prospective evaluation of delta-9-tetrahydrocannabinol as an antiemetic in patients receiving adriamycin and cytoxan chemotherapy. Cancer 1981; 47: 1746-1751.
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- Ekert H, Waters KD, Jurk KH, Mobilia J, Loughnan P. Amelioration of cancer chemotherapy-induced nausea and vomiting by delta-9-tetrahydrocannabinol. Medical Journal of Australia 1979;2:657-659.
- Frytak S, Moertel CG, O'Fallon JR, Rubin J, Creagan ET, O'Connell MJ. Delta-9-tetrahydrocannabinol as an antiemetic for patients receiving cancer chemotherapy. A comparison with prochlorperazine and a placebo. Annals of Internal Medicine 1979;91:825-830.
- Gralla RJ, Tyson LB, Bordin LA, Clark RA, Kelsen DP, Kris MG. Antiemetic therapy: a review of recent studies and a report of a random assignment trial comparing metoclopramide with delta-9-tetrahydrocannabinol. Cancer Treatment Report 1984;68:163-172.
- Kluin-Nelemans JC, Nelemans FA, Meuwissen OJATH, Maes RAA.  $\Delta^9$ -tetrahydrocannabinol (THC) as an antiemetic in patients treated with cancer chemotherapy; a double-blind cross-over trial against placebo. Veterinary and Human Toxicology 1979;21:338-340.
- Lane M, Vogel CL, Ferguson J, Krasnow S, Saiers JL, Hamm J. Dronabinol and prochlorperazine in combination for treatment of cancer chemotherapy-induced nausea and vomiting. Journal of Pain and Symptom Management 1991;6:352-359.
- Levitt M, Faiman C, Hawks R, Wilson A. Randomized double blind comparison of delta-9-tetrahydrocannabinol (THC) and marijuana as chemotherapy antiemetics. Proceedings of the American Society for Clinical Oncology 1984;3:91.
- Levitt M, Wilson A, Bowman D, Faiman C, Kemel S, Krepart G. Dose vs response of tetrahydrocannabinol (THC) vs prochlorperazine as chemotherapy antiemetics. Proceedings of the American Society for Clinical Oncology 1981;22:422.
- McCabe M, Smith FP, Goldberg D, Macdonald J, Woolley PV, Warren R. Efficacy of tetrahydrocannabinol in patients refractory to standard anti-emetic therapy. Investigational New Drugs 1988;6:243-246.
- Neidhart JA, Gagen MM, Wilson HE, Young DC. Comparative trial of the antiemetic effects of THC and haloperidol. International Journal of Clinical Pharmacology Research 1981; 21: 38-42S.
- Orr LE, McKernan JF, Bloome B. Antiemetic effect of tetrahydrocannabinol. Compared with placebo and prochlorperazine in chemotherapy-associated nausea and emesis. Archives of Internal Medicine 1980;140:1431-433.
- Sallan SE, Cronin C, Zelen M, Zinberg NE. Antiemetics in patients receiving chemotherapy for cancer. A randomized comparison of delta-9-tetrahydrocannabinol and prochlorperazine. New England Journal of Medicine 1980;302:135-138.
- Sallan SE, Zinberg NE, Frei E. Antiemetic effect of delta-9-tetrahydrocannabinol in patients receiving cancer chemotherapy. New England Journal of Medicine 1975;293:795-797.

- Ungerleider JT, Andrysiak T, Fairbanks L, Goodnight J, Sarna G, Jamison K. Cannabis and cancer chemotherapy. A comparison of oral delta-9-THC and prochlorperazine. *Cancer* 1982;50:636-645.
- Ungerleider JT, Sarna G, Fairbanks LA, Goodnight J, Andrysiak T, Jamison K. THC or compazine for the cancer chemotherapy patient - the UCLA study. Part II: patient drug preference. *American Journal of Clinical Oncology* 1985; 8: 142-147.
- Meiri E, Jhangiani H, Vredenburgh JJ, Barbato LM, Carter FJ, Yang HM, Baranowski V. Efficacy of dronabinol alone and in combination with ondansetron versus ondansetron alone for delayed chemotherapy-induced nausea and vomiting. *Curr Med Res Opin* 2007;23(3):533-43.

#### **Cannabis (fumado)**

- Levitt M, Faiman C, Hawks R, Wilson A. Randomized double blind comparison of delta-9-tetrahydrocannabinol (THC) and marijuana as chemotherapy antiemetics. *Proceedings of the American Society for Clinical Oncology* 1984;3:91.

#### **Cannabis (oral, sublingual)**

- Duran M, Pérez E, Abanades S, Vidal X, Saura C, Majem M, Arriola E, Rabanal M, Pastor A, Farré M, Rams N, Laporte JR, Capellà D. Preliminary efficacy and safety of an oromucosal standardized cannabis extract in chemotherapy-induced nausea and vomiting. *Br J Clin Pharmacol* 2010;70(5):656-63.

#### **Nabilona**

- Ahmedzai S, Carlyle DL, Clader IT, Moran F. Anti-emetic efficacy and toxicity of nabilone, a synthetic cannabinoid, in lung cancer chemotherapy. *British Journal of Cancer* 1983;48:657-663.
- Chan HS, Correia JA, MacLeod SM. Nabilone versus prochlorperazine for control of cancer chemotherapy-induced emesis in children: a double-blind, crossover trial. *Pediatrics* 1987; 79: 946-952
- Crawford SM, Buckman R. Nabilone and metoclopramide in the treatment of nausea and vomiting due to cisplatin: a double blind study. *Medical Oncology and Tumor Pharmacotherapy* 1986; 3: 39-42.
- Cunningham D, Bradley CJ, Forrest GJ, Hutcheon AW, Adams L, Sneddon M, et al. A randomized trial of oral nabilone and prochlorperazine compared to intravenous metoclopramide and dexamethasone in the treatment of nausea and vomiting induced by chemotherapy regimens containing cisplatin or cisplatin analogues. *European Journal of Cancer and Clinical Oncology* 1988; 24: 685-689.
- Dalzell AM, Bartlett H, Lilleyman JS. Nabilone: An alternative antiemetic for cancer chemotherapy. *Archives of Disease in Childhood* 1986;61:502-505.
- Einhorn LH, Nagy C, Furnas B, Williams SD. Nabilone: an effective antiemetic in patients receiving cancer chemotherapy. *Journal of Clinical Pharmacology*. 1981 Aug-Sep;21(8-9 Suppl):64S-69S.
- George M, Pejovic MH, Thuairé M, Kramar A, Wolff JP. Randomized comparative trial of a new antiemetic: nabilone, in cancer patients treated with cisplatin. *Biomedicine and Pharmacotherapy* 1983; 37: 24-27.
- Herman TS, Einhorn LH, Jones SE, Nagy C, Chester AB, Dean JC, et al. Superiority of nabilone over prochlorperazine as an antiemetic in patients receiving cancer chemotherapy. *New England Journal of Medicine* 1979; 300: 1295-1297.
- Johansson R, Kilkku P, Groenroos M. A double-blind, controlled trial of nabilone vs prochlorperazine for refractory emesis induced by cancer chemotherapy. *Cancer Treatment Reviews* 1982; 9: 25-33.
- Jones SE, Durant JR, Greco FA, Robertone A. A multi-institutional phase III study of nabilone vs placebo in chemotherapy-induced nausea and vomiting. *Cancer Treatment Reviews* 1982; 9: 45-48
- Levitt M. Nabilone vs placebo in the treatment of chemotherapy-induced nausea and vomiting in cancer patients. *Cancer Treatment Reviews* 1982; 9(suppl B): 49-53.
- Nagy CM, Furnas BE, Einhorn LH, Bond WH. Nabilone: antiemetic crossover study in cancer

chemotherapy patients. Proceedings of the American Society for Cancer Research 1978;19:30.

- Niederle N, Schutte J, Schmidt CG. Crossover comparison of the antiemetic efficacy of nabilone and alizapride in patients with nonseminomatous testicular cancer receiving cisplatin therapy. *Klinische Wochenschrift* 1986; 64: 362-365.
- Niiranen Aila, Mattson K. A cross-over comparison of nabilone and prochlorperazine for emesis induced by cancer chemotherapy. *American Journal of Clinical Oncology* 1985;8:336-340.
- Pomeroy M, Fennelly JJ, Towers M. Prospective randomized double-blind trial of nabilone versus domperidone in the treatment of cytotoxic-induced emesis. *Cancer Chemotherapy and Pharmacology* 1986;17:285-288.
- Priestman SG, Priestman TJ, Canney PA. A double-blind randomised cross-over comparison of nabilone and metoclopramide in the control of radiation-induced nausea. *Clinical Radiology* 1987; 38: 543-544.
- Steele N, Gralla RJ, Braun Jr DW, Young CW. Double-blind comparison of the antiemetic effects of nabilone and prochlorperazine on chemotherapy-induced emesis. *Cancer Treatment Report* 1980; 64: 219-224.
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#### **Levonantradol**

- Citron ML, Herman TS, Vreeland F, Krasnow SH, Fossieck BE, Jr. Antiemetic efficacy of levonantradol compared to delta-9-tetrahydrocannabinol for chemotherapy-induced nausea and vomiting. *Cancer Treatment Reports* 1985;69:109-112.
- Higi M, Niederle N, Bremer K, Schmitt G, Schmidt CG, Seeber S. Levonantradol bei der Behandlung von zytostatika-bedingter Nausea and Vomiting. *Deutsche Medizinische Wochenschrift* 1982; 107: 1232-1234.
- Hutcheon AW, Palmer JB, Soukop M, Cunningham D, McArdle C, Welsh J, et al. A randomised multicentre single blind comparison of a cannabinoid anti-emetic (levonantradol) with ychlorpromazine in patients receiving their first cytotoxic chemotherapy. *European Journal for Cancer and Clinical Oncology* 1983; 19: 1087-1090
- Stambaugh Jr JE, McAdams J, Vreeland F. Dose ranging evaluation of the antiemetic efficacy and toxicity of intramuscular levonantradol in cancer subjects with chemotherapy-induced emesis. *International Journal of Clinical Pharmacology Research* 1984; 24: 480-485

## **Estudios no controlados**

#### **Delta-8-THC**

- Abrahamov A, Abrahamov A, Mechoulam R. An efficient new cannabinoid antiemetic in pediatric oncology. *Life Sciences* 1995;56:2097-2102.

#### **Cannabis (fumado)**

- Vinciguerra V, Moore T, Brennan E. Inhalation marijuana as an antiemetic for cancer chemotherapy. *New York State Journal of Medicine* 1988;88:525-527.
- Musty RE, Rossi R. Effects of smoked cannabis and oral delta-9-tetrahydrocannabinol on nausea and emesis after cancer chemotherapy: A review of state clinical trials. *J Cannabis Ther* 2001;1(1):29-42.

## **Casos clínicos, encuestas**

- Doblin RE, Kleiman MA. Marijuana as antiemetic medicine: a survey of oncologists' experiences and attitudes. *American Journal of Clinical Oncology* 1991; 9: 1314-1319.
- Schwartz RH, Voth EA, Sheridan MJ. Marijuana to prevent nausea and vomiting in cancer patients: a survey of clinical oncologists. *South Medical Journal* 1997;90(2):167-72.

## **Nauseas y vómitos – Radioterapia**

### **Estudios controlados**

#### **Dronabinol**

- Ungerleider JT, Andrysiak TA, Fairbanks LA, Tesler AS, Parker RG. Tetrahydrocannabinol vs. prochlorperazine. The effects of two antiemetics on patients undergoing radiotherapy. *Radiology* 1984;150(2):598-9.

#### **Levonantradol**

- Lucraft HH, Palmer MK. Randomised clinical trial of levonantradol and chlorpromazine in the prevention of radiotherapy-induced vomiting. *Clinical Radiology* 1982; 33: 621-622.

## **Nauseas y vómitos – Metástasis**

### **Estudios no controlados**

#### **Dronabinol**

- Zutt M, Hanssle H, Emmert S, Neumann C, Kretschmer L. [Dronabinol for supportive therapy in patients with malignant melanoma and liver metastases] [Article in German]. *Hautarzt* 2006;57(5):423-7.

### **Casos clínicos, encuestas**

#### **Dronabinol**

- Gonzalez-Rosales F, Walsh D. Intractable nausea and vomiting due to gastrointestinal mucosal metastases relieved by tetrahydrocannabinol (dronabinol). *Journal of Pain and Symptom Management* 1997;14(5):311-314.

## **Nauseas y vómitos – Cirugía**

### **Estudios controlados**

#### **Dronabinol**

- Layeeque R, Siegel E, Kass R, Henry-Tillman RS, Colvert M, Mancino A, Klimberg VS. Prevention of nausea and vomiting following breast surgery. *Am J Surg* 2006;191(6):767-72.

#### **Nabilona**

- Lewis IH, Campbell DN, Barrowcliffe MP. Effect of nabilone on nausea and vomiting after total abdominal hysterectomy. *British Journal of Anaesthesia* 1994; 73: 244-246.

## **Nauseas y vómitos – VIH/SIDA**

### **Estudios no controlados**

#### **Cannabis (fumado)**

- de Jong BC, Prentiss D, McFarland W, Machezano R, Israelski DM. Marijuana use and its association with adherence to antiretroviral therapy among HIV-infected persons with moderate to severe nausea. *J Acquir Immune Defic Syndr* 2005;38(1):43-6.

### **Casos clínicos, encuestas**

#### **Cannabis (fumado)**

- Woolridge E, Barton S, Samuel J, Osorio J, Dougherty A, Holdcroft A. Cannabis use in HIV for pain and other medical symptoms. *J Pain Symptom Manage* 2005;29(4):358-67.

- Sidney S. Marijuana use in HIV-positive and AIDS patients: Results of a an anonymous mail survey. *J Cannabis Ther* 2001;1(3-4):35-43.
- Corless IB, Lindgren T, Holzemer W, Robinson L, Moezzi S, Kirksey K, Coleman C, Tsai YF, Sanzero Eller L, Hamilton MJ, Sefcik EF, Canaval GE, Rivero Mendez M, Kempainen JK, Bunch EH, Nicholas PK, Nokes KM, Dole P, Reynolds N. Marijuana Effectiveness as an HIV Self-Care Strategy. *Clin Nurs Res* 2009;18(2):172-93.

## **Nauseas y vómitos – Tratamiento hepatitis C**

### **Estudios no controlados**

#### **Dronabinol, Nabilona**

- Costiniuk CT, Mills E, Cooper CL. Evaluation of oral cannabinoid-containing medications for the management of interferon and ribavirin-induced anorexia, nausea and weight loss in patients treated for chronic hepatitis C virus. *Can J Gastroenterol* 2008;22(4):376-80.

#### **Cannabis (fumado)**

- Sylvestre DL, Clements BJ, Malibu Y. Cannabis use improves retention and virological outcomes in patients treated for hepatitis C. *Eur J Gastroenterol Hepatol* 2006;18(10):1057-63.

## **Nauseas y vómitos – Embarazo**

### **Casos clínicos, encuestas**

#### **Cannabis (fumado)**

- Curry W-NL. Hyperemesis gravidarum and clinical cannabis: To eat or not to eat? *J Cannabis Ther* 2002;2(3-4):63-83.
- Westfall RE, Janssen PA, Lucas P, Capler R. Survey of medicinal cannabis use among childbearing women: patterns of its use in pregnancy and retroactive self-assessment of its efficacy against 'morning sickness'. *Complement Ther Clin Pract* 2006;12(1):27-33.

## **Nauseas y vómitos – Mareo por movimiento**

### **Estudios no controlados**

#### **Vuelo parabólico (sin sustancia)**

- Choukèr A, Kaufmann I, Kreth S, Hauer D, Feuerecker M, Thieme D, Vogeser M, Thiel M, Schelling G. Motion sickness, stress and the endocannabinoid system. *PLoS One* 2010;5(5):e10752.

## **Nauseas y vómitos – Otros**

### **Casos clínicos, encuestas**

#### **Dronabinol**

- Merriman AR, Oliak DA. Use of medical marijuana for treatment of severe intractable nausea after laparoscopic Roux-en-Y gastric bypass surgery: case report. *Surg Obes Relat Dis* 2008;4(4):550-1.

## **Nauseas y vómitos – Sujetos sanos**

### **Estudios controlados**

#### **Cannabis (fumado)**

- Soderpalm AH, Schuster A, de Wit H. Antiemetic efficacy of smoked marijuana: subjective and behavioral effects on nausea induced by syrup of ipecac. *Pharmacology, Biochemistry and Behavior*

2001;69(3-4):343-50.

## **Pérdida de apetito – VIH/SIDA**

### **Estudios controlados**

#### **Dronabinol**

- Beal JE, Olson R, Laubenstein L, Morales JP, Bellman P, Yangco B, Lefkowitz L, Plasse TF, Shepard KV. Dronabinol as a treatment for anorexia associated with weight loss in patients with AIDS. *Journal of Pain and Symptom Management* 1995;10(2):89-97.
- Timpone JG, Wright DJ, Li N, Egorin MJ, Enama ME, Mayers J, Galetto G, and the DATRI 004 Study Group. The safety and pharmacokinetics of single-agent and combination therapy with megestrol acetate and dronabinol for the treatment of HIV wasting syndrome. *AIDS Research and Human Retroviruses* 1997;13:305-315.
- Abrams DI, Hilton JF, Leiser RJ, Shade SB, Elbeik TA, Aweeka FT, Benowitz NL, Bredt BM, Kosel B, Aberg JA, Deeks SG, Mitchell TF, Mulligan K, Bacchetti P, McCune JM, Schambelan M. Short-term effects of cannabinoids in patients with HIV-1 infection: a randomized, placebo-controlled clinical trial. *Ann Intern Med* 2003;139(4):258-66.
- Haney M, Rabkin J, Gunderson E, Foltin RW. Dronabinol and marijuana in HIV(+) marijuana smokers: acute effects on caloric intake and mood. *Psychopharmacology (Berl)* 2005;181(1):170-8.
- Haney M, Gunderson EW, Rabkin J, Hart CL, Vosburg SK, Comer SD, Foltin RW. Dronabinol and marijuana in HIV-positive marijuana smokers. Caloric intake, mood, and sleep. *J Acquir Immune Defic Syndr* 2007;45(5):545-54.
- Bedi G, Foltin RW, Gunderson EW, Rabkin J, Hart CL, Comer SD, Vosburg SK, Haney M. Efficacy and tolerability of high-dose dronabinol maintenance in HIV-positive marijuana smokers: a controlled laboratory study. *Psychopharmacology (Berl)* 2010;212(4):675-86.

#### **Cannabis (fumado)**

- Haney M, Rabkin J, Gunderson E, Foltin RW. Dronabinol and marijuana in HIV(+) marijuana smokers: acute effects on caloric intake and mood. *Psychopharmacology (Berl)* 2005;181(1):170-8.
- Haney M, Gunderson EW, Rabkin J, Hart CL, Vosburg SK, Comer SD, Foltin RW. Dronabinol and marijuana in HIV-positive marijuana smokers. Caloric intake, mood, and sleep. *J Acquir Immune Defic Syndr* 2007;45(5):545-54.

### **Estudios no controlados**

#### **Dronabinol**

- Gorter R, Seefried M, Volberding P. Dronabinol effects on weight in patients with HIV infection. *AIDS* 1992;6:127.
- Plasse TF, Gorter RW, Krasnow SH, Lane M, Shepard KV, Wadleigh RG. Recent clinical experience with dronabinol. *Pharmacology, Biochemistry and Behavior* 1991;40:695-700.
- Plasse T, Conant M, Gorter R, Shepard KV. Dronabinol stimulates appetite and causes weight gain in HIV patients. *International Conference on AIDS* 1992;8(3):122 (abstract no. PuB 7442).
- Struwe M, Kaempfer SH, Geiger CJ, Pavia AT, Plasse TF, Shepard KV, Ries K, Evans TG. Effect of dronabinol on nutritional status in HIV infection. *Annals of Pharmacotherapy* 1993;27:827-831.
- Beal JE, Olson R, Lefkowitz L, Laubenstein L, Bellman P, Yangco B, Morales JO, Murphy R, Powderly W, Plasse TF, Mosdell KW, Shepard KV. Long-term efficacy and safety of dronabinol for acquired immunodeficiency syndrome-associated anorexia. *Journal of Pain and Symptom Management* 1997;14(1):7-14.
- Dejesus E, Rodwick BM, Bowers D, Cohen CJ, Pearce D. Use of dronabinol improves appetite and reverses weight loss in HIV/AIDS-infected patients. *J Int Assoc Physicians AIDS Care* 2007;6(2):95-100.



## Casos clínicos, encuestas

### Cannabis (fumado)

- Prentiss D, Power R, Balmas G, Tzuang G, Israelski DM. Patterns of marijuana use among patients with HIV/AIDS followed in a public health care setting. *J Acquir Immune Defic Syndr* 2004;35(1):38-45.
- Woolridge E, Barton S, Samuel J, Osorio J, Dougherty A, Holdcroft A. Cannabis use in HIV for pain and other medical symptoms. *J Pain Symptom Manage* 2005;29(4):358-67.
- Sidney S. Marijuana use in HIV-positive and AIDS patients: Results of a an anonymous mail survey. *J Cannabis Ther* 2001;1(3-4):35-43.
- Corless IB, Lindgren T, Holzemer W, Robinson L, Moezzi S, Kirksey K, Coleman C, Tsai YF, Sanzero Eller L, Hamilton MJ, Sefcik EF, Canaval GE, Rivero Mendez M, Kempainen JK, Bunch EH, Nicholas PK, Nokes KM, Dole P, Reynolds N. Marijuana Effectiveness as an HIV Self-Care Strategy. *Clin Nurs Res* 2009;18(2):172-93.

## Pérdida de apetito – Cáncer

### Estudios controlados

#### Dronabinol

- Jatoi A, Windschitl HE, Loprinzi CL, Sloan JA, Dakhil SR, Mailliard JA, Pundaleeka S, Kardinal CG, Fitch TR, Krook JE, Novotny PJ, Christensen B. Dronabinol versus megestrol acetate versus combination therapy for cancer-associated anorexia: a North Central Cancer Treatment Group study. *Journal of Clinical Oncology* 2002;20(2):567-573.
- Regelson W, Butler JR, Schulz J, Kirk T, Peek L, Green ML, Zalis MO. Delta-9-tetrahydrocannabinol as an effective antidepressant and appetite-stimulating agent in advanced cancer patients. In: Braude MC, Szara S, editors. *Pharmacology of marijuana*. Vol 2. New York: Raven Press, 1976. p. 763-776.
- Wadleigh R, Spaulding GM, Lumbersky B, Zimmer M, Shepard K, Plasse T. Dronabinol enhancement of appetite in cancer patients. *Proc Am Soc Oncology* 1990; 9: 331.
- Strasser F, Luftner D, Possinger K, Ernst G, Ruhstaller T, Meissner W, Ko YD, Schnelle M, Reif M, Cerny T. Comparison of orally administered cannabis extract and delta-9-tetrahydrocannabinol in treating patients with cancer-related anorexia-cachexia syndrome: a multicenter, phase III, randomized, double-blind, placebo-controlled clinical trial from the Cannabis-in-Cachexia-Study-Group. *J Clin Oncol* 2006;24(21):3394-400.
- Brisbois TD, de Kock IH, Watanabe SM, Mirhosseini M, Lamoureux DC, Chasen M, Macdonald N, Baracos VE, Wismer WV. Delta-9-tetrahydrocannabinol may palliate altered chemosensory perception in cancer patients: results of a randomized, double-blind, placebo-controlled pilot trial. *Ann Oncol*. 2011 Feb 22. [versión electrónica ya disponible]

#### Cannabis (oral, sublingual)

- Strasser F, Luftner D, Possinger K, Ernst G, Ruhstaller T, Meissner W, Ko YD, Schnelle M, Reif M, Cerny T. Comparison of orally administered cannabis extract and delta-9-tetrahydrocannabinol in treating patients with cancer-related anorexia-cachexia syndrome: a multicenter, phase III, randomized, double-blind, placebo-controlled clinical trial from the Cannabis-in-Cachexia-Study-Group. *J Clin Oncol* 2006;24(21):3394-400.

### Estudios no controlados

#### Dronabinol

- Plasse TF, Gorter RW, Krasnow SH, Lane M, Shepard KV, Wadleigh RG. Recent clinical experience with dronabinol. *Pharmacology, Biochemistry and Behavior* 1991;40:695-700.

- Nelson K, Walsh D, Deeter P, Sheehan F. A phase II study of delta-9-tetrahydrocannabinol for appetite stimulation in cancer-associated anorexia. *Journal of Palliative Care* 1994;10:14-18.
- Gottschling S. [Cannabinoides en niños] [Artículo en alemán] Cannabinoide bei Kindern. *Angewandte Schmerztherapie und Palliativmedizin* 2011;(1):55-57.

## **Pérdida de apetito – Enfermedad de Alzheimer**

### **Estudios controlados**

#### **Dronabinol**

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### **Estudios no controlados**

#### **Dronabinol**

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### **Estudios no controlados**

#### **Dronabinol**

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### **Estudios controlados**

#### **Dronabinol**

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## **Pérdida de apetito - EPOC**

### **Estudios no controlados**

#### **Dronabinol**

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## **Pérdida de apetito – Sujetos sanos**

### **Estudios controlados**

#### **Cannabis (fumado)**

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## Espasticidad – Esclerosis múltiple

### Estudios controlados

#### Dronabinol

- Killestein J, Hoogervorst EL, Reif M, Kalkers NF, Van Loenen AC, Staats PG, Gorter RW, Uitdehaag BM, Polman CH. Safety, tolerability, and efficacy of orally administered cannabinoids in MS. *Neurology* 2002;58(9):1404-7.
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- Zajicek J, Fox P, Sanders H, Wright D, Vickery J, Nunn A, Thompson A, on behalf of the UK MS Research Group. Cannabinoids for treatment of spasticity and other symptoms related to multiple sclerosis (CAMS study): multicentre randomised placebo-controlled trial. *Lancet* 2003; 362(9385): 1517-1526.
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#### Nabilona

- Martyn CN, Illis LS, Thom J. Nabilone in the treatment of multiple sclerosis. *Lancet* 1995;345:579.

#### Cannabis (oral, sublingual)

- Vaney C, Heinzl-Gutenbrunner M, Jobin P, Tschopp F, Gattlen B, Hagen U, Schnelle M, Reif M. Efficacy of tetrahydrocannabinol in patients refractory to standard antiemetic therapy. Efficacy, safety and tolerability of an orally administered cannabis extract in the treatment of spasticity in patients with multiple sclerosis: a randomized, double-blind, placebo-controlled, crossover study. *Multiple Sclerosis* 2004;10(4):417-24.
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## **Casos clínicos, encuestas**

#### **Dronabinol**

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## **Espasticidad – Lesión médula espinal**

### **Estudios controlados**

#### **Dronabinol**

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### **Estudios controlados**

### **Nabilona**

- Pooyania S, Ethans K, Szturm T, Casey A, Perry D. A randomized, double-blinded, crossover pilot study assessing the effect of nabilone on spasticity in persons with spinal cord injury. *Arch Phys Med Rehabil* 2010;91(5):703-7.

### **Estudios no controlados**

#### **Dronabinol**

- Kogel RW, Johnson PB, Chintam R, Robinson CJ, Nemchausky BA. Treatment of spasticity in spinal cord injury with dronabinol, a tetrahydrocannabinol derivative. *American Journal of Therapeutics* 1995;2(10):799-805.

### **Casos clínicos, encuestas**

#### **Cannabis (fumado)**

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## **Espasticidad – Otras causas**

### **Estudios controlados**

#### **Cannabis (oral, sublingual)**

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### **Estudios no controlados**

#### **Dronabinol**

- Brenneisen R, Egli A, Elsohly MA, Henn V, Spiess Y. The effect of orally and rectally administered delta-9-tetrahydrocannabinol on spasticity: a pilot study with 2 patients. *International Journal of Clinical Pharmacology and Therapeutics* 1996;34:446-452.

### **Casos clínicos, encuestas**

#### **Dronabinol**

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## **Dolor – Crónico, neurológico/esclerosis múltiple**

### **Estudios controlados**

#### **Dronabinol**

- Brenneisen R, Egli A, Elsohly MA, Henn V, Spiess Y. The effect of orally and rectally administered delta-9-tetrahydrocannabinol on spasticity: a pilot study with 2 patients. *International Journal of Clinical Pharmacology and Therapeutics* 1996;34:446-452.
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- Wissel J, Haydn T, Müller J, Brenneis C, Berger T, Poewe W, Schelosky LD. Low dose treatment with the synthetic cannabinoid Nabilone significantly reduces spasticity-related pain : a double-blind placebo-controlled cross-over trial. *J Neurol* 2006;253(10):1337-41.
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#### **Cannabis (oral, sublingual)**

- Wade DT, Robson P, House H, Makela P, Aram J. A preliminary controlled study to determine whether whole-plant cannabis extracts can improve intractable neurogenic symptoms. *Clinical Rehabilitation* 2003;17:18-26.
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### **Cannabis (fumado)**

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### **Cannabidiol**

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### **CT-3 (ácido ajulémico)**

- Karst M, Salim K, Burstein S, Conrad I, Hoy L, Schneider U. Analgesic effect of the synthetic cannabinoid CT-3 on chronic neuropathic pain: a randomized controlled trial. *JAMA* 2003;290(13):1757-62.

## **Estudios no controlados**

### **Dronabinol**

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### **Cannabis (oral, sublingual)**

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### **Nabilona (oral)**

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## **Casos clínicos, encuestas**

### **Cannabis (fumado)**

- Dunn M, Davis R. The perceived effects of marijuana on spinal cord injured males. *Paraplegia* 1974;12:175.
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## **Dolor – Crónico, cáncer**

### **Estudios controlados**

#### **Dronabinol**

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#### **Cannabis (oral, sublingual)**

- Johnson JR, Burnell-Nugent M, Lossignol D, Ganae-Motan ED, Potts R, Fallon MT. Multicenter, Double-Blind, Randomized, Placebo-Controlled, Parallel-Group Study of the Efficacy, Safety, and Tolerability of THC:CBD Extract and THC Extract in Patients With Intractable Cancer-Related Pain. *J Pain Symptom Manage* 2010;39(2):167-79.

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- Staquet M, Gantt C, Machin D. Effect of a nitrogen analog of tetrahydrocannabinol on cancer pain. *Clinical Pharmacology and Therapeutics* 1978;23:397-401.

### **Estudios no controlados**

#### **Dronabinol**

- Butler JR, Peek LA, Regelson W, Moore MM, Lubin LA. Treatment effects of delta-9-THC in an advanced cancer population. In: Cohen S, Stillman RC, eds. *The therapeutic potential of marijuana*. Plenum Medical Book, New York 1976.

#### **Nabilona**

- Maida V. The synthetic cannabinoid nabilone improves pain and symptom management in cancer patients. Abstract of San Antonio Breast Cancer Symposium, 15 December 2006.
- Maida V, Ennis M, Irani S, Corbo M, Dolzhykov M. Adjunctive nabilone in cancer pain and symptom management: a prospective observational study using propensity scoring. *J Support Oncol*



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## **Dolor – Reumático**

### **Estudios controlados**

#### **Cannabis (oral, sublingual)**

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## **Dolor – Fibromialgia**

### **Estudios controlados**

#### **Nabilona**

- Skrabek RQ, Galimova L, Ethans K, Perry D. Nabilone for the treatment of pain in fibromyalgia. *J Pain* 2008;9(2):164-73.
- Ware MA, Fitzcharles MA, Joseph L, Shir Y. The effects of nabilone on sleep in fibromyalgia: results of a randomized controlled trial. *Anesth Analg* 2010;110(2):604-10.

### **Estudios no controlados**

#### **Dronabinol**

- Schley M, Legler A, Skopp G, Schmelz M, Konrad C, Rukwied R. Delta-9-THC based monotherapy in fibromyalgia patients on experimentally induced pain, axon reflex flare, and pain relief. *Curr Med Res Opin* 2006;22(7):1269-1276.
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### **Casos clínicos, encuestas**

#### **Cannabis (fumado)**

- Fiz J, Duran M, Langohr K, Capellà D, Farré M. Symptoms relief and improved mental health in fibromyalgia patients using cannabis. Results of an observational study. IACM 4th Conference on Cannabinoids in Medicine, 5-6 October 2007, Cologne, International Association for Cannabis as Medicine.

## **Dolor – Crónico**

### **Estudios controlados**

#### **Dronabinol**

- Notcutt W, Price M, Miller R, Newport S, Phillips C, Simmons S, Sansom C. Initial experiences with medicinal extracts of cannabis for chronic pain: results from 34 'N of 1' studies. *Anaesthesia* 2004;59(5):440-52.
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#### **Cannabis (oral, sublingual)**

- Holdcroft A, Smith M, Jacklin A, Hodgson H, Smith B, Newton M, Evans F. Pain relief with oral cannabinoids in familial Mediterranean fever. *Anaesthesia* 1997;52:483-488.
- Notcutt W, Price M, Miller R, Newport S, Phillips C, Simmons S, Sansom C. Initial experiences with medicinal extracts of cannabis for chronic pain: results from 34 'N of 1' studies. *Anaesthesia*

2004;59(5):440-52.

#### **Cannabis (fumado)**

- Ware MA, Ducruet T, Robinson AR. Evaluation of herbal cannabis characteristics by medical users: a randomized trial. *Harm Reduct J* 2006;3(1):32

#### **Nabilona**

- Pinsger M, Schimetta W, Volc D, Hiermann E, Riederer F, Polz W. [Benefits of an add-on treatment with the synthetic cannabinomimetic nabilone on patients with chronic pain - a randomized controlled trial.] [Article in German] *Wien Klin Wochenschr* 2006;118(11-12):327-35.

#### **N-palmitoiletanolamina (tópico)**

- Phan NQ, Siepmann D, Gralow I, Ständer S. Adjuvant topical therapy with a cannabinoid receptor agonist in facial postherpetic neuralgia. *J Dtsch Dermatol Ges* 2010;8(2):88-91.

### **Estudios no controlados**

#### **Cannabis (oral, sublingual)**

- Haroutiunian S, Rosen G, Shouval R, Davidson E. Open-label, add-on study of tetrahydrocannabinol for chronic nonmalignant pain. *J Pain Palliat Care Pharmacother* 2008;22(3):213-7.

#### **Nabilona**

- Hamann W, di Vadi PP. Analgesic effect of the cannabinoid analogue nabilone is not mediated by opioid receptors. *Lancet* 1999;353(9152):560.

### **Casos clínicos, encuestas**

#### **Dronabinol**

- Elsner F, Radbruch L, Sabatowski R. [Tetrahydrocannabinol for treatment of chronic pain] [Article in German]. *Pain* 2001;15(3):200-4.

#### **Cannabis (fumado)**

- Noyes R, Baram DA. Cannabis analgesia. *Comprehensive Psychiatry* 1974;15:531-535.
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- Howard J, Anie KA, Holdcroft A, Korn S, Davies SC. Cannabis use in sickle cell disease: a questionnaire study. *Br J Haematol* 2005;131(1):123-8.
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## **Dolor – Agudo, quirúrgico**

### **Estudios controlados**

#### **Dronabinol**

- Raft D, Gregg J, Ghia J, Harris L. Effects of intravenous tetrahydrocannabinol on experimental and surgical pain: psychological correlates of the analgesic response. *Clinical Pharmacology and Therapeutics* 1977;21:26-33.
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- Seeling W, Kneer L, Buchele B, Gschwend JE, Maier L, Nett C, Simmet T, Steffen P, Schneider M, Rockemann M. [(9)-tetrahydrocannabinol and the opioid receptor agonist piritramide do not act synergistically in postoperative pain.] [Article in German]. *Anaesthesist* 2006;55(4):391-400.

#### **Cannabis (oral, sublingual)**

- Holdcroft A, Maze M, Dore C, Tebbs S, Thompson S. A multicenter dose-escalation study of the analgesic and adverse effects of an oral cannabis extract (Cannador) for postoperative pain management. *Anesthesiology* 2006;104(5):1040-1046.

#### **Nabilona**

- Beaulieu P. Effects of nabilone, a synthetic cannabinoid, on postoperative pain. *Can J Anaesth* 2006;53(8):769-75.

#### **Levonantradol**

- Jain AK, Ryan JR, McMahon FG, Smith G. Evaluation of intramuscular levonantradol and placebo in acute postoperative pain. *Journal of Clinical Pharmacology* 1981;21(suppl 8-9):S320-S326.
- Kantor TG, Hopper M. A study of levonantradol, a cannabinol derivative, for analgesia in post operative pain. *Pain* 1981; (suppl): S37.

#### **GW842166**

- Ostenfeld T, Price J, Albanese M, Bullman J, Guillard F, Meyer I, Leeson R, Costantin C, Ziviani L, Nocini PF, Milleri S. A randomized, controlled study to investigate the analgesic efficacy of single doses of the cannabinoid receptor-2 agonist GW842166, ibuprofen or placebo in patients with acute pain following third molar tooth extraction. *Clin J Pain* 2011;27(8):668-76.

## **Dolor – Agudo, sujetos sanos**

### **Estudios controlados**

#### **Dronabinol**

- Naef M, Curatolo M, Petersen-Felix S, Arendt-Nielsen L, Zbinden A, Brenneisen R. The analgesic effect of oral delta-9-tetrahydrocannabinol (THC), morphine, and a THC-morphine combination in healthy subjects under experimental pain conditions. *Pain* 2003;105(1-2):79-88.
- Roberts JD, Gennings C, Shih M. Synergistic affective analgesic interaction between delta-9-tetrahydrocannabinol and morphine. *Eur J Pharmacol* 2006;530(1-2):54-8.

#### **Nabilona**

- Redmond WJ, Goffaux P, Potvin S, Marchand S. Analgesic and antihyperalgesic effects of nabilone on experimental heat pain. *Curr Med Res Opin* 2008;24(4):1017-24.

#### **Cannabis (fumado)**

- Greenwald MK, Stitzer ML. Antinociceptive, subjective and behavioral effects of smoked marijuana in humans. *Drug Alcohol Depend* 2000;59(3):261-75.
- Wallace M, Schulteis G, Atkinson JH, Wolfson T, Lazzaretto D, Bentley H, Gouaux B, Abramson I. Dose-dependent effects of smoked cannabis on capsaicin-induced pain and hyperalgesia in healthy volunteers. *Anesthesiology* 2007;107(5):785-796.

#### **Cannabis (oral, sublingual)**

- Kraft B, Frickey NA, Kaufmann RM, Reif M, Frey R, Gustorff B, Kress HG. Lack of analgesia by oral standardized cannabis extract on acute inflammatory pain and hyperalgesia in volunteers. *Anesthesiology* 2008;109(1):101-10.

### **Estudios no controlados**

#### **Cannabis (fumado)**

- Hill SY, Schwin R, Goodwin DW, Powell B. Marijuana and pain. *J Pharmacol Exp Ther* 1974;188:415-8.

- Clark WC, Janal MN, Zeidenberg P, Nahas GG. Effects of moderate and high doses of marijuana on thermal pain: a sensory decision theory analysis. *J Clin Pharmacol* 1981;21(8-9 Suppl):299S-310S.

## **Dolor de cabeza/migraña**

### **Casos clínicos, encuestas**

#### **Dronabinol**

- Raby WN, Modica PA, Wolintz RJ, Murtaugh K. Dronabinol reduces signs and symptoms of idiopathic intracranial hypertension: a case report. *J Ocul Pharmacol Ther* 2006;22(1):68-75.
- Robbins MS, Tarshish S, Solomon S, Grosberg BM. Cluster Attacks Responsive to Recreational Cannabis and Dronabinol. *Headache* 2009;49(6):914-6.

#### **Cannabis (fumado)**

- Raby WN, Modica PA, Wolintz RJ, Murtaugh K. Dronabinol reduces signs and symptoms of idiopathic intracranial hypertension: a case report. *J Ocul Pharmacol Ther* 2006;22(1):68-75.
- Robbins MS, Tarshish S, Solomon S, Grosberg BM. Cluster Attacks Responsive to Recreational Cannabis and Dronabinol. *Headache* 2009;49(6):914-6.

#### **Cannabis (histórico)**

- Russo EB. Hemp for headache: An in-depth historical and scientific review of cannabis in migraine treatment. *J Cannabis Ther* 2001;1(2):21-92.

## **Esclerosis lateral amiotrófica**

### **Estudios controlados**

#### **Dronabinol**

- Weber M, Goldman B, Truniger S. Tetrahydrocannabinol (THC) for cramps in amyotrophic lateral sclerosis: a randomised, double-blind crossover trial. *J Neurol Neurosurg Psychiatry* 2010;81(10):1135-40.

### **Casos clínicos, encuestas**

#### **Cannabis (fumado)**

- Amtmann D, Weydt P, Johnson KL, Jensen MP, Carter GT. Survey of cannabis use in patients with amyotrophic lateral sclerosis. *Am J Hosp Palliat Care* 2004;21(2):95-104.

## **Disfunción vesical**

### **Estudios controlados**

#### **Dronabinol**

- Hagenbach U, Ghafoor N, Brenneisen R, Luz S, Mäder M. Clinical investigation of  $\Delta$ -9-tetrahydrocannabinol (THC) as an alternative therapy for overactive bladders in spinal cord injury (SCI) patients? Abstract, 2001 Congress on Cannabis and the Cannabinoids, International Association for Cannabis as Medicine, 25-27 October 2001, Cologne, Germany.
- Freeman RM, Adekanmi O, Waterfield MR, Waterfield AE, Wright D, Zajicek J. The effect of cannabis on urge incontinence in patients with multiple sclerosis: a multicentre, randomised placebo-controlled trial (CAMS-LUTS). *Int Urogynecol J Pelvic Floor Dysfunct* 2006;17(6):636-41.

#### **Cannabis (oral, sublingual)**

- Brady CM, DasGupta R, Dalton C, Wiseman OJ, Berkley KJ, Fowler CJ. An open-label pilot study of cannabis-based extracts for bladder dysfunction in advanced multiple sclerosis. *Multiple Sclerosis* 2004;10(4):425-33.
- de Ridder D, Constantinescu CS, Fowler C, Kavia R, Sarantis N. Randomised controlled study of

cannabis-based medicine (Sativex®) in patients suffering from multiple sclerosis associated detrusor overactivity. 22nd Congress of the ECTRIMS, 27-30 September 2006, Madrid, Spain.

- Freeman RM, Adekanmi O, Waterfield MR, Waterfield AE, Wright D, Zajicek J. The effect of cannabis on urge incontinence in patients with multiple sclerosis: a multicentre, randomised placebo-controlled trial (CAMS-LUTS). *Int Urogynecol J Pelvic Floor Dysfunct* 2006;17(6):636-41.
- Kavia RB, De Ridder D, Constantinescu CS, Stott CG, Fowler CJ. Randomized controlled trial of Sativex to treat detrusor overactivity in multiple sclerosis. *Mult Scler* 2010;16(11):1349-59.

## Reflujo gastro-esofágico

### Estudios controlados (experimentos en sujetos sanos)

#### Dronabinol

- Beaumont H, Jensen J, Carlsson A, Ruth M, Lehmann A, Boeckxstaens GE. Effect of Delta(9)-tetrahydrocannabinol, a cannabinoid receptor agonist, on the triggering of transient lower oesophageal sphincter relaxations in dogs and humans. *Br J Pharmacol* 2009;156(1):153-62.

## Síndrome del intestino irritable, diarrea

### Estudios controlados (experimentos en sujetos sanos)

#### Dronabinol

- Esfandyari T, Camilleri M, Busciglio I, Burton D, Baxter K, Zinsmeister AR. Effects of a cannabinoid receptor agonist on colonic motor and sensory functions in humans: a randomized, placebo-controlled study. *Am J Physiol Gastrointest Liver Physiol* 2007;293(1):G137-45.
- Klooker TK, Leliefeld KE, Van Den Wijngaard RM, Boeckxstaens GE. The cannabinoid receptor agonist delta-9-tetrahydrocannabinol does not affect visceral sensitivity to rectal distension in healthy volunteers and IBS patients. *Neurogastroenterol Motil* 2011;23(1):30-5, e2.
- Wong BS, Camilleri M, Busciglio I, Carlson P, Szarka LA, Burton D, Zinsmeister AR. Pharmacogenetic Trial of a Cannabinoid Agonist Shows Reduced Fasting Colonic Motility in Patients with Non-Constipated Irritable Bowel Syndrome. *Gastroenterology*, 28. Juli 2011 [im Druck]

## Enfermedad de Crohn

### Casos clínicos, encuestas

#### Cannabis

- Lal S, Prasad N, Ryan M, Tangri S, Silverberg MS, Gordon A, Steinhart H. Cannabis use amongst patients with inflammatory bowel disease. *Eur J Gastroenterol Hepatol* 2011;23(10):891-6.

### Estudios no controlados

#### Cannabis

- Naftali T, Lev LB, Yablekovitz D, Half E, Konikoff FM. Treatment of Crohn's disease with cannabis: an observational study. *Isr Med Assoc J* 2011;13(8):455-8.

## Colitis ulcerosa

### Casos clínicos, encuestas

#### Cannabis

- Lal S, Prasad N, Ryan M, Tangri S, Silverberg MS, Gordon A, Steinhart H. Cannabis use amongst

patients with inflammatory bowel disease. Eur J Gastroenterol Hepatol 2011;23(10):891-6.

## **Obstetricia y ginecología**

### **Casos clínicos, encuestas**

#### **Cannabis (histórico)**

- Russo E. Cannabis treatments in obstetrics and gynecology: A historical review. J Cannabis Ther 2002;2(3-4):5-35.

## **Temblor**

### **Estudios controlados**

#### **Dronabinol**

- Clifford DB. Tetrahydrocannabinol for tremor in multiple sclerosis. Annals of Neurology 1983;13:669-671.

#### **Cannabis (oral, sublingual)**

- Fox P, Bain PG, Glickman S, Carroll C, Zajicek J. The effect of cannabis on tremor in patients with multiple sclerosis. Neurology 2004;62(7):1105-9.

## **Distonía**

### **Estudios no controlados**

#### **Nabilona**

- Fox SH, Kellett M, Moore AP, Crossman AR, Brotchie JM. Randomised, double-blind, placebo-controlled trial to assess the potential of cannabinoid receptor stimulation in the treatment of dystonia. Movement Disorders 2002;17(1):145-149.

#### **Cannabidiol**

- Snider SR, Consroe P. Treatment of Meige's syndrome with cannabidiol. Neurology 1984;34(Suppl):147.
- Sandyk R, Snider SR, Consroe P, Elias SM. Cannabidiol in dystonic movement disorders. Psychiatry Research 1986;18:291.
- Consroe P, Sandyk R, Snider SR. Open label evaluation of cannabidiol in dystonic movement disorders. International Journal of Neuroscience 1986;30:277-282.

## **Disquinesia provocada por L-Dopa (disquinesia tardía)**

### **Estudios controlados**

#### **Nabilona**

- Sieradzan KA, Fox SH, Dick J, Brotchie JM. The effects of the cannabinoid receptor agonist nabilone on L-DOPA induced dyskinesia in patients with idiopathic Parkinson's disease (PD). Movement Disorders 1998;13(Suppl 2):29.

### **Casos clínicos, encuestas**

#### **Cannabis (fumado)**

- Beckmann Y, Seçil Y, Güngör B, Yiğit T. Tardive Dystonia and the Use of Cannabis. Turk Psikiyatri Derg 2010;21(1):90-91.

#### **Dronabinol**

- Beckmann Y, Seçil Y, Güngör B, Yiğit T. Tardive Dystonia and the Use of Cannabis. Turk Psikiyatri Derg

2010;21(1):90-91.

## Hipo (singultus)

### Casos clínicos, encuestas

#### Cannabis (fumado)

- Gilson I, Busalacchi M. Marijuana for intractable hiccups. *Lancet* 1998; 351(9098): 267.

## Síndrome de Tourette, tics

### Estudios controlados

#### Dronabinol

- Müller-Vahl KR, Schneider U, Koblenz A, Jobges M, Kolbe H, Daldrup T, Emrich HM. Treatment of Tourette's syndrome with Delta 9-tetrahydrocannabinol (THC): a randomized crossover trial. *Pharmacopsychiatry* 2002;35(2):57-61.
- Müller-Vahl KR, Schneider U, Prevedel H, Theloe K, Kolbe H, Daldrup T, Emrich HM. Delta 9-tetrahydrocannabinol (THC) is effective in the treatment of tics in Tourette syndrome: a 6-week randomized trial. *Journal of Clinical Psychiatry*. 2003;64(4):459-65.

### Estudios no controlados

#### Dronabinol

- Müller-Vahl KR, Schneider U, Kolbe H, Emrich HM. Treatment of Tourette-Syndrome with delta-9-Tetrahydrocannabinol. *American Journal of Psychiatry* 1999;156:495.

### Casos clínicos, encuestas

#### Dronabinol

- Deutsch SI, Rosse RB, Connor JM, Burket JA, Murphy ME, Fox FJ. Current status of cannabis treatment of multiple sclerosis with an illustrative case presentation of a patient with MS, complex vocal tics, paroxysmal dystonia, and marijuana dependence treated with dronabinol. *CNS Spectr* 2008;13(5):393-403.
- Müller-Vahl KR, Schneider U, Emrich HM. Combined treatment of Tourette syndrome with delta-9-THC and dopamine receptor agonists. *J Cannabis Ther* 2002;2(3-4):145-54.
- Hasan A, Rothenberger A, Münchau A, Wobrock T, Falkai P, Roessner V. Oral delta9-tetrahydrocannabinol improved refractory Gilles de la Tourette syndrome in an adolescent by increasing intracortical inhibition: a case report. *J Clin Psychopharmacol* 2010;30(2):190-2.
- Brunbauer A, Segmiller FM, Volkamer T, Laux G, Müller N, Dehning S. Cannabinoids improve driving ability in a Tourette's patient. *Psychiatry Res*, 9. Juni 2011

#### Cannabis (fumado)

- Müller-Vahl KR, Kolbe H, Schneider U, Emrich HM. Cannabinoids: Possible role in pathophysiology of Gilles de la Tourette-syndrome. *Acta Psychiatrica Scandinavica* 1998;97:1-5.
- Sandyk R, Awerbuch G. Marijuana and Tourette's Syndrome. *Journal of Clinical Psychopharmacology* 1988;8:444-445.
- Hemming M, Yellowlees PM. Effective treatment of Tourette's syndrome with marijuana. *J Psychopharmacol* 1993; 7: 389-91.

## Trastorno del movimiento hiperkinético

### Casos clínicos, encuestas

### **Dronabinol**

- Farooq MU, Ducommun E, Goudreau J. Treatment of a hyperkinetic movement disorder during pregnancy with dronabinol. *Parkinsonism Relat Disord* 2009;15(3):249-51.

## **Trastorno por déficit de atención/hiperactividad**

### **Estudios no controlados**

#### **Cannabis (fumado)**

- Aharonovich E, Garawi F, Bisaga A, Brooks D, Raby WN, Rubin E, Nunes EV, Levin FR. Concurrent cannabis use during treatment for comorbid ADHD and cocaine dependence: effects on outcome. *Am J Drug Alcohol Abuse*. 2006;32(4):629-35.

### **Casos clínicos, encuestas**

#### **Dronabinol**

- Strohbeck-Kuehner P, Skopp G, Mattern R. [Fitness to drive in spite (because) of THC] [Article in German]. *Arch Kriminol* 2007;220(1-2):11-9.

#### **Cannabis (fumado)**

- Strohbeck-Kuehner P, Skopp G, Mattern R. [Fitness to drive in spite (because) of THC] [Article in German]. *Arch Kriminol* 2007;220(1-2):11-9.
- O'Connell TJ, Bou-Matar CB. Long term marijuana users seeking medical cannabis in California (2001-2007): demographics, social characteristics, patterns of cannabis and other drug use of 4117 applicants. *Harm Reduct J* 2007;4:16.

## **Trastorno obsesivo compulsivo**

### **Casos clínicos, encuestas**

#### **Dronabinol, Cannabis (fumado)**

- Schindler F, Angheliescu I, Regen F, Jockers-Scherubl M. Improvement in refractory obsessive compulsive disorder with dronabinol. *Am J Psychiatry* 2008;165(4):536-7.

## **Tricotilomanía**

### **Estudios no controlados**

#### **Dronabinol**

- Grant JE, Odlaug BL, Chamberlain SR, Kim SW. Dronabinol, a cannabinoid agonist, reduces hair pulling in trichotillomania: a pilot study. *Psychopharmacology (Berl)*, 19. Mai 2011

## **Enfermedad de Parkinson**

### **Estudios controlados**

#### **Cannabis (oral, sublingual)**

- Carroll CB, Bain PG, Teare L, Liu X, Joint C, Wroath C, Parkin SG, Fox P, Wright D, Hobart J, Zajicek JP. Cannabis for dyskinesia in Parkinson disease: a randomized double-blind crossover study. *Neurology* 2004;63(7):1245-50.

### **Estudios no controlados**

#### **Cannabis (fumado)**

- Frankel JP, Hughes A, Lees AJ, Stern GM. Marijuana for Parkinsonian tremor. *Journal of Neurology*,



Neurosurgery and Psychiatry 1990;53:436.

## Enfermedad de Huntington

### Estudios controlados

#### Cannabidiol

- Consroe P, Laguna J, Allender J, Snider S, Stern L, Sandyk R, Kennedy K, Schram K. Controlled clinical trial of cannabidiol in Huntington's disease. *Pharmacology, Biochemistry and Behavior*. 1991;40(3):701-8.

### Estudios no controlados

#### Nabilona

- ❖ Müller-Vahl KR, Schneider U, Emrich HM. Nabilone deteriorates choreatic movements in Huntington's disease. *Movement Disorders* 1999b;14:1038-40.

## Traumatismo craneoencefálico

### Estudios controlados

#### Dexanabinol

- Maas AI, Murray G, Henney H 3rd, Kassem N, Legrand V, Mangelus M, Muizelaar JP, Stocchetti N, Knoller N; Pharms TBI investigators. Efficacy and safety of dexanabinol in severe traumatic brain injury: results of a phase III randomised, placebo-controlled, clinical trial. *Lancet Neurol* 2006;5(1):38-45.

## Tinnitus

### Casos clínicos, encuestas

#### Dronabinol/Cannabis (fumado)

- Raby WN, Modica PA, Wolintz RJ, Murtaugh K. Dronabinol reduces signs and symptoms of idiopathic intracranial hypertension: a case report. *J Ocul Pharmacol Ther* 2006;22(1):68-75.

## Prurito

### Estudios no controlados

#### Crema con endocannabinoides

- Szepietowski JC, Szepietowski T, Reich A. Efficacy and tolerance of the cream containing structured physiological lipids with endocannabinoids in the treatment of uremic pruritus: a preliminary study. *Acta Dermatovenerol Croat* 2005;13(2):97-103.
- Ständer S, Reinhardt HW, Luger TA. [Topical cannabinoid agonists: An effective new possibility for treating chronic pruritus.] [Article in German]. *Hautarzt* 2006;57(9):801-7.

### Casos clínicos, encuestas

#### Dronabinol

- Neff GW, O'Brien CB, Reddy KR, Bergasa NV, Regev A, Molina E, Amaro R, Rodriguez MJ, Chase V, Jeffers L, Schiff E. Preliminary observation with dronabinol in patients with intractable pruritus secondary to cholestatic liver disease. *Am J Gastroenterol* 2002;97(8):2117-9.

# Sudores nocturnos

## Estudios no controlados

### Nabilona

- Maida V. Nabilone for the treatment of paraneoplastic night sweats: a report of four cases. *J Palliat Med* 2008;11(6):929-34.

# Epilepsia

## Estudios controlados

### Cannabidiol

- Cunha JM, Carlini EA, Pereira AE, Ramos OL, Pimentel C, Gagliardi R, Sanvito WL, Lander N, Mechoulam R. Chronic administration of cannabidiol to healthy volunteers and epileptic patients. *Pharmacology* 1980;21(3):175-85.

## Estudios no controlados

### Cannabis (fumado)

- Consroe PF, Wood GC, Buchsbaum H. Anticonvulsant nature of marihuana smoking. *JAMA* 1975;234(3):306-7.

### Cannabidiol

- Ames FR, Cridland S.: Anticonvulsant effect of cannabidiol [letter]. *South African Medical Journal* 1986;69:14.
- Trembly B, Sherman M. Double-blind clinical study of cannabidiol as a secondary anticonvulsant. Conference on Cannabis and Cannabinoids, Kolympari/Crete, July 1990, cited according to: Consroe P, Sandyk R. Potential role of cannabinoids for therapy of neurological disorders. In: Murphy L, Bartke A, eds. *Marijuana/Cannabinoids, Neurobiology and Neurophysiology*. Boca Raton: CRC Press 1992, 459-524. [**Commentary:** No effect of Cannabidiol (300 mg/day) in 10 patients.]
- Trembly B, Sherman M. Double-blind clinical study of cannabidiol as a secondary anticonvulsant. Conference on Cannabis and Cannabinoids, Kolympari/Crete, July 1990, cited according to: Consroe P, Sandyk R. Potential role of cannabinoids for therapy of neurological disorders. In: Murphy L, Bartke A, eds. *Marijuana/Cannabinoids, Neurobiology and Neurophysiology*. Boca Raton: CRC Press 1992, 459-524. [**Commentary:** Reduction in Reduzierung in frequency of seizures with cannabidiol (900-1200 mg/day) in one patient.]

## Casos clínicos, encuestas

### Cannabis (fumado)

- Corral VL. Differential effects of medical marijuana based on strain and route of administration: A three-year observational study. *J Cannabis Ther* 2001;1(3-4):43-59.
- Mortati K, Dworetzky B, Devinsky O. Marijuana: an effective antiepileptic treatment in partial epilepsy? A case report and review of the literature. *Rev Neurol Dis* 2007;4(2):103-6.

# Síndrome de Isaac

## Caso clínico

### Dronabinol

- Meyniel C, Ollivier Y, Hamidou M, Péréon Y, Derkinderen P. Dramatic improvement of refractory Isaacs' syndrome after treatment with dronabinol. *Clin Neurol Neurosurg* 2011;113(4):323-4.

# Presión intraocular - Glaucoma

## Estudios controlados

### Cannabis (fumado)

- Crawford WJ, Merritt JC. Effects of tetrahydrocannabinol on arterial and intraocular hypertension. *International Journal of Clinical Pharmacology and Biopharmacy* 1979;17(5):191-196.
- Merritt JC, Crawford WJ, Alexander PC, Anduze AL, Gelbart SS. Effect of marihuana on intraocular and blood pressure in glaucoma. *Ophthalmology* 1980;87(3):222-8.

### Dronabinol

- Tomida I, Azuara-Blanco A, House H, Flint M, Pertwee RG, Robson PJ. Effect of sublingual application of cannabinoids on intraocular pressure: a pilot study. *J Glaucoma* 2006;15(5):349-353.

### Cannabidiol

- Tomida I, Azuara-Blanco A, House H, Flint M, Pertwee RG, Robson PJ. Effect of sublingual application of cannabinoids on intraocular pressure: a pilot study. *J Glaucoma* 2006;15(5):349-353.

## Estudios no controlados

### Cannabis (fumado)

- Hepler RS, Frank IM, Petrus R. Ocular effects of marijuana smoking. In: Braude MC, Szara S, eds. *The pharmacology of marihuana*. Raven Press: New York: 1976;815-828.

## Casos clínicos, encuestas

### Cannabis (fumado)

- Russo EB, Mathre ML, Byrne A, Velin R, Bach PJ, Sanchez-Ramos J, et al. Chronic cannabis use in the Compassionate Investigational New Drug Program: An examination of benefits and adverse effects of legal clinical cannabis. *J Cannabis Ther* 2002;2(1):3-57.

## Administración tópica

### Dronabinol

- Merritt JC, Perry DD, Russell DN, Jones BF. Topical delta 9-tetrahydrocannabinol and aqueous dynamics in glaucoma. *Journal of Clinical Pharmacology* 1981;21(8-9 Suppl):467S-471S.

# Presión intraocular – Sujetos sanos

## Estudios controlados

### Dronabinol

- Cooler P, Gregg JM. Effect of delta-9-tetrahydrocannabinol on intraocular pressure in humans. *Southern Medical Journal* 1977;70(8):951-954.
- Jones RT, Benowitz N, Herning RI. The clinical relevance of cannabis tolerance and dependence. *Journal of Clinical Pharmacology* 1981;21:143S-152S.
- Levitt M, Wilson A, Bowman D, Kemel S, Krepart G, Marks V, Schipper H, Thomson G, Weinerman B, Weinerman R. Physiologic observations in a controlled clinical trial of the antiemetic effectiveness of 5, 10, and 15 mg of delta 9-tetrahydrocannabinol in cancer chemotherapy. *Ophthalmologic implications*. *J Clin Pharmacol* 1981;21(8-9 Suppl):103S-109S.

### Delta-9-THC, Delta-8-THC, 11-OH-THC, CBD, CBN

- Perez-Reyes M, Wagner D, Wall ME, Davis KH. Intravenous administration of cannabinoids and intraocular pressure. In: Braude MC, Szara S, ed. *Pharmacology of marihuana*. New York: Raven Press, 1976;829-832.

## Estudios no controlados

### Dronabinol

- Plange N, Arend KO, Kaup M, Doehmen B, Adams H, Hendricks S, Cordes A, Huth J, Sponsel WE, Remky A. Dronabinol and retinal hemodynamics in humans. *Am J Ophthalmol* 2007;143(1):173-4.

### Cannabis (fumado)

- Hepler RS, Frank IM. Marijuana smoking and intraocular pressure. *Journal of the American Medical Association* 1971;217:1392.
- Flom MC, Adams AJ, Jones RT. Marijuana smoking and reduced intraocular pressure in human eye: Drug action or epiphenomenon? *Investigative Ophthalmology* 1975;14:52-55.
- Hepler R S, Frank I M, Petrus R. Ocular effects of marijuana smoking. In: Braude MC, Szara S, eds. *The pharmacology of marihuana*. New York: Raven Press, 1976;815-828.

## Visión nocturna

### Estudios controlados

#### Dronabinol

- Russo EB, Merzouki A, Molero Mesa J, Frey KA, Bach PJ. Cannabis improves night vision: A pilot study of dark adaptometry and scotopic sensitivity in kif smokers of the Rif Mountains of Northern Morocco. *J Ethnopharmacol* 2004;93(1):99-104.

### Estudios no controlados

#### Cannabis (fumado)

- Russo EB, Merzouki A, Molero Mesa J, Frey KA, Bach PJ. Cannabis improves night vision: A pilot study of dark adaptometry and scotopic sensitivity in kif smokers of the Rif Mountains of Northern Morocco. *J Ethnopharmacol* 2004;93(1):99-104.

## Asma

### Estudios controlados

#### Dronabinol

- Tashkin DP, Reiss S, Shapiro BJ, Calvarese B, Olsen JL, Lodge JW. Bronchial effects of aerosolized delta 9-tetrahydrocannabinol in healthy and asthmatic subjects. *American Review of Respiratory Disease* 1977;115(1):57-65.
- Williams SJ, Hartley JP, Graham JD. Bronchodilator effect of delta1-tetrahydrocannabinol administered by aerosol of asthmatic patients. *Thorax* 1976;31(6):720-723.

#### Cannabis (fumado)

- Tashkin DP, Shapiro BJ, Lee YE, Harper CE. Effects of smoked marijuana in experimentally induced asthma. *American Review of Respiratory Disease* 1975;112(3):377-386.
- Vachon L, Mikus P, Morrissey W, FitzGerald M, Gaensler E. Bronchial effect of marihuana smoke in asthma. In: Braude MC, Szara S, eds. *The pharmacology of marihuana*. Raven Press: New York: 1976;777-784.

#### Nabilona

- Gong H Jr, Tashkin DP, Calvarese B. Comparison of bronchial effects of nabilone and terbutaline in healthy and asthmatic subjects. *Journal of Clinical Pharmacology* 1983;23(4):127-133

### Estudios no controlados

#### Dronabinol

- Tashkin DP, Shapiro BJ, Frank IM. Acute effects of smoked marijuana and oral delta9-

tetrahydrocannabinol on specific airway conductance in asthmatic subjects. American Review for Respiratory Diseases. 1974 Apr;109(4):420-8.

#### **Cannabis (fumado)**

- Tashkin DP, Shapiro BJ, Frank IM. Acute effects of smoked marijuana and oral delta9-tetrahydrocannabinol on specific airway conductance in asthmatic subjects. American Review for Respiratory Diseases 1974 Apr;109(4):420-8.

## **Broncodilatación – Sujetos sanos**

### **Estudios controlados**

#### **Dronabinol**

- Gong H Jr, Tashkin DP, Simmons MS, Calvarese B, Shapiro BJ. Acute and subacute bronchial effects of oral cannabinoids. Clinical Pharmacology and Therapeutics 1984;35(1):26-32.
- Tashkin DP, Reiss S, Shapiro BJ, Calvarese B, Olsen JL, Lodge JW. Bronchial effects of aerosolized delta 9-tetrahydrocannabinol in healthy and asthmatic subjects. American Review of Respiratory Disease 1977;115(1):57-65.

#### **Nabilona**

- Gong H Jr, Tashkin DP, Calvarese B. Comparison of bronchial effects of nabilone and terbutaline in healthy and asthmatic subjects. Journal of Clinical Pharmacology 1983;23(4):127-133.

## **EPOC (enfermedad pulmonar obstructiva crónica)**

### **Estudios controlados**

#### **Cannabis (oral, sublingual)**

- Pickering EE, Semple SJ, Nazir MS, Murphy K, Snow TM, Cummin AR, Moosavi S, Guz A, Holdcroft A. Cannabinoid effects on ventilation and breathlessness: A pilot study of efficacy and safety. Chron Respir Dis 2011;8(2):109-18.

## **Presión sanguínea/Hipertensión**

### **Casos clínicos, encuestas**

#### **Cannabis (fumado)**

- Vandrey R, Umbricht A, Strain EC. Increased Blood Pressure Following Abrupt Cessation of Daily Cannabis Use. J Addict Med 2011;5(1):16-20.

## **Cáncer**

### **Estudios no controlados**

#### **Dronabinol**

- Guzmán M, Duarte MJ, Blázquez C, Ravina J, Rosa MC, Galve-Roperh I, Sánchez C, Velasco G, González-Feria L. A pilot clinical study of Delta9-tetrahydrocannabinol in patients with recurrent glioblastoma multiforme. Br J Cancer 2006;95(2):197-203.

### **Casos clínicos, encuestas**

#### **Cannabis (fumado)**

- Liang C, McClean MD, Marsit C, Christensen B, Peters E, Nelson HH, Kelsey KT. A population-based case-control study of marijuana use and head and neck squamous cell carcinoma. Cancer Prev Res (Phila Pa) 2009;2(8):759-68.

- Foroughi M, Hendson G, Sargent MA, Steinbok P. Spontaneous regression of septum pellucidum/forniceal pilocytic astrocytomas-possible role of Cannabis inhalation. Childs Nerv Syst 2011;27(4):671-9.

## Enfermedad de Alzheimer

### Estudios controlados

#### Dronabinol

- Volicer L, Stelly M, Morris J, McLaughlin J, Volicer BJ. Effects of dronabinol on anorexia and disturbed behavior in patients with Alzheimer's disease. International Journal of Geriatric Psychiatry 1997;12:913-919.

### Estudios no controlados

#### Dronabinol

- Patel S, Shua-Haim JR, Pass M. Safety and efficacy of dronabinol in the treatment of agitation in patients with Alzheimer's disease with anorexia: A retrospective chart review. Abstract, 11th International Conference of the IPA, 17-22 August 2003, Chicago.
- Ross JS, Shua-Haim JR. Open-label study of dronabinol in the treatment of refractory agitation in Alzheimer's disease: a pilot study. Abstract, ASCP's 34th Annual Meeting, 12-15 November 2003, San Antonio, USA.
- Walther S, Mahlberg R, Eichmann U, Kunz D. Delta-9-tetrahydrocannabinol for nighttime agitation in severe dementia. Psychopharmacology (Berl) 2006;185(4):524-8.

#### Nabilona

- Passmore MJ. The cannabinoid receptor agonist nabilone for the treatment of dementia-related agitation. Int J Geriatr Psychiatry 2008;23(1):116-7.

## Neuroprotección

### Casos clínicos, encuestas

#### Cannabis (fumado)

- Jacobus J, McQueeney T, Bava S, Schweinsburg BC, Frank LR, Yang TT, Tapert SF. White matter integrity in adolescents with histories of marijuana use and binge drinking. Neurotoxicol Teratol 2009;31(6):349-55.

## Psicosis esquizofrénica

### Estudios controlados

#### Cannabidiol

- Leweke FM, Koethe D, Gerth CW, Nolden BM, Schreiber D, Hänsel A, Neatby MA, Juelicher A, Hellmich M, Klosterkötter J. Cannabidiol as an antipsychotic. A double-blind, controlled clinical trial on cannabidiol vs. amisulpride in acute schizophrenia. IACM 3rd Conference on Cannabinoids in Medicine, 9-10 September 2005, Leiden, International Association for Cannabis as Medicine.
- Zuardi AW, Hallak JE, Dursun SM, Morais SL, Faria Sanches R, Musty RE, Crippa JA. Cannabidiol monotherapy for treatment-resistant schizophrenia. J Psychopharmacol 2006;20(5):683-6.

### Estudios no controlados

#### Cannabidiol

- Zuardi AW, Morais SL, Guimarães FS, Mechoulam R. Antipsychotic effect of cannabidiol. Journal of

Clinical Psychiatry 1995;56:485-486.

## Casos clínicos, encuestas

### Dronabinol

- Schwarcz G, Karajgi B, McCarthy R. Synthetic delta-9-tetrahydrocannabinol (dronabinol) can improve the symptoms of schizophrenia. *J Clin Psychopharmacol* 2009;29(3):255-8.
- Schwarcz G, Karajgi B. Improvement in refractory psychosis with dronabinol: four case reports. *J Clin Psychiatry*. 2010;71(11):1552-3.

## Casos clínicos, encuestas

### Cannabis (fumado)

- Schwarcz G, Karajgi B, McCarthy R. Synthetic delta-9-tetrahydrocannabinol (dronabinol) can improve the symptoms of schizophrenia. *J Clin Psychopharmacol* 2009;29(3):255-8.
- Schwarcz G, Karajgi B. Improvement in refractory psychosis with dronabinol: four case reports. *J Clin Psychiatry*. 2010;71(11):1552-3.

## Trastorno bipolar

### Casos clínicos, encuestas

#### Cannabis (fumado)

- Grinspoon L, Bakalar JB. The use of cannabis as a mood stabilizer in bipolar disorder: anecdotal evidence and the need for clinical research. *Journal of Psychoactive Drugs* 1998;30(2):171-7.
- El-Mallakh RS, Brown C. The effect of extreme marijuana use on the long-term course of bipolar I illness: a single case study. *J Psychoactive Drugs* 2007;39(2):201-2.
- Ringen PA, Vaskinn A, Sundet K, Engh JA, Jónsdóttir H, Simonsen C, Friis S, Opjordsmoen S, Melle I, Andreassen OA. Opposite relationships between cannabis use and neurocognitive functioning in bipolar disorder and schizophrenia. *Psychol Med* 2010;40(8):1337-47.

## Depresión

### Estudios controlados

#### Dronabinol

- Regelson W, Butler JR, Schulz J, Kirk T, Peek L, Green ML, Zalis MO. Delta-9-tetrahydrocannabinol as an effective antidepressant and appetite-stimulating agent in advanced cancer patients. In: Braude MC, Szara S, editors. *Pharmacology of marijuana*. Vol 2. New York: Raven Press, 1976. p. 763-776.

### Casos clínicos, encuestas

#### Cannabis (fumado)

- Ware MA, Adams H, Guy GW. The medicinal use of cannabis in the UK: results of a nationwide survey. *Int J Clin Pract* 2005;59(3):291-5.

## Ansiedad

### Estudios controlados

#### Cannabidiol

- Bergamaschi MM, Queiroz RH, Chagas MH, de Oliveira DC, De Martinis BS, Kapczinski F, Quevedo J, Roesler R, Schröder N, Nardi AE, Martín-Santos R, Hallak JE, Zuardi AW, Crippa JA. Cannabidiol Reduces the Anxiety Induced by Simulated Public Speaking in Treatment-Naïve Social Phobia

Patients. Neuropsychopharmacology. 2011 Feb 9. [versión electrónica ya disponible]

- Crippa JA, Derenusson GN, Ferrari TB, Wichert-Ana L, Duran FL, Martin-Santos R, Simões MV, Bhattacharyya S, Fusar-Poli P, Atakan Z, Santos Filho A, Freitas-Ferrari MC, McGuire PK, Zuardi AW, Busatto GF, Hallak JE. Neural basis of anxiolytic effects of cannabidiol (CBD) in generalized social anxiety disorder: a preliminary report. J Psychopharmacol 2011;25(1):121-30.

## **Trastorno por estrés post-traumático**

### **Casos clínicos, encuestas**

#### **Cannabis (fumado)**

- Villagonzalo KA, Dodd S, Ng F, Mihaly S, Langbein A, Berk M. The relationship between substance use and posttraumatic stress disorder in a methadone maintenance treatment program. Compr Psychiatry 2011;52(5):562-6.
- Cornelius JR, Kirisci L, Reynolds M, Clark DB, Hayes J, Tarter R. PTSD contributes to teen and young adult cannabis use disorders. Addict Behav 2010;35(2):91-4.
- Reznik I. Medical cannabis use in post-traumatic stress disorder: a naturalistic observational study. Abstract presented at the Cannabinoid Conference 2011, 8-10 September, Bonn, Germany.

## **Dependencia a alcohol**

### **Casos clínicos, encuestas**

#### **Cannabis (fumado)**

- Mikuriya TH. Cannabis substitution. An adjunctive therapeutic tool in the treatment of alcoholism. Medical Times 1970;98(4):187-91.
- Mikuriya TH. Cannabis as a substitute for alcohol: a harm-reduction approach. J Cannabis Ther 2004;4(1):79-93.
- Reiman A. Cannabis as a substitute for alcohol and other drugs Harm Reduct J 2009;6:35.

## **Dependencia a opiáceos**

### **Casos clínicos, encuestas**

#### **Cannabis (fumado)**

- Hermann D, Klages E, Welzel H, Mann K, Croissant B. Low efficacy of non-opioid drugs in opioid withdrawal symptoms. Addict Biol 2005;10(2):165-9.
- O'Connell TJ, Bou-Matar CB. Long term marijuana users seeking medical cannabis in California (2001-2007): demographics, social characteristics, patterns of cannabis and other drug use of 4117 applicants. Harm Reduct J 2007;4:16.

### **Estudios no controlados**

#### **Cannabis (fumado)**

- Raby WN, Carpenter KM, Rothenberg J, Brooks AC, Jiang H, Sullivan M, Bisaga A, Comer S, Nunes EV. Intermittent marijuana use is associated with improved retention in naltrexone treatment for opiate dependence. Am J Addict 2009;18(4):301-8.

## **Dependencia a cocaína/crack**

### **Estudios no controlados**

#### **Cannabis (fumado)**



- Aharonovich E, Garawi F, Bisaga A, Brooks D, Raby WN, Rubin E, Nunes EV, Levin FR. Concurrent cannabis use during treatment for comorbid ADHD and cocaine dependence: effects on outcome. *Am J Drug Alcohol Abuse*. 2006;32(4):629-35.
- Labigalini E Jr, Rodrigues LR, Da Silveira DX. Therapeutic use of cannabis by crack addicts in Brazil. *J Psychoactive Drugs* 1999;31(4):451-5.

## Casos clínicos, encuestas

### Cannabis (fumado)

- Dreher M. Crack heads and roots daughters: The therapeutic use of cannabis in Jamaica. *J Cannabis Ther* 2002;2(3-4):121-33.

## Dependencia a cannabis

### Estudios controlados

#### Dronabinol

- Haney M, Hart CL, Vosburg SK, Nasser J, Bennett A, Zubarán C, Foltin RW. Marijuana withdrawal in humans: effects of oral THC or divalproex. *Neuropsychopharmacology* 2004;29(1):158-70.

## Casos clínicos, encuestas

#### Dronabinol

- Levin FR, Kleber HD. Use of dronabinol for cannabis dependence: two case reports and review. *Am J Addict* 2008;17(2):161-4.

## Sueño

### Estudios controlados

#### Dronabinol, Cannabidiol

- Nicholson AN, Turner C, Stone BM, Robson PJ. Effect of Delta-9-tetrahydrocannabinol and cannabidiol on nocturnal sleep and early-morning behavior in young adults. *J Clin Psychopharmacol* 2004;24(3):305-13.

## Otras enfermedades

### Casos clínicos, encuestas

#### Cannabis (fumado)

- Grinspoon L, Bakalar JB. *Marihuana, the forbidden medicine*. Rev. and exp. ed. New Haven: Yale University Press; 1997.
- Randall RC, O'Leary AM. *Marijuana Rx: The patients' fight for medicinal pot*. New York: Thunder's Mouth Press; 1998.
- Corral VL. Differential effects of medical marijuana based on strain and route of administration: A three-year observational study. *J Cannabis Ther* 2001;1(3-4):43-59.
- Grotenhermen F, Schnelle M. Survey on the medical use of cannabis and THC in Germany. *J Cannabis Ther* 2003;3(2):17-40.
- Gieringer D. Medical use of cannabis: Experience in California. In: Grotenhermen F, Russo E, editors. *Cannabis and cannabinoids: Pharmacology, toxicology, and therapeutic potential*. Binghamton, NY: Haworth Press; 2001. p. 153-70.
- Ware MA, Adams H, Guy GW. The medicinal use of cannabis in the UK: results of a nationwide survey. *Int J Clin Pract* 2005;59(3):291-5.

- Russo EB, Mathre ML, Byrne A, Velin R, Bach PJ, Sanchez-Ramos J, et al. Chronic cannabis use in the Compassionate Investigational New Drug Program: An examination of benefits and adverse effects of legal clinical cannabis. *J Cannabis Ther* 2002;2(1):3-57.
- O'Connell TJ, Bou-Matar CB. Long term marijuana users seeking medical cannabis in California (2001-2007): demographics, social characteristics, patterns of cannabis and other drug use of 4117 applicants. *Harm Reduct J* 2007;4:16.
- Bottorff JL, Johnson JL, Moffat BM, Mulvogue T. Relief oriented use of marijuana by teens. *Subst Abuse Treat Prev Policy* 2009;4(1):7.