

# Abstracts of Roma Pain Days 2022

Giustino Varrassi<sup>1,\*</sup>

<sup>1</sup>*Congress Chair, Paolo Procacci Foundation, Rome, Italy*

\*Correspondence: [giuvarr@gmail.com](mailto:giuvarr@gmail.com) (Giustino Varrassi)

---

## Roma Pain Days 2022 Abstract Reviewers

Laura Catalina Merlano

Magdi Hanna

Joseph Pergolizzi

Robert Raffa

JoAnn LeQuang

Frank Breve

John Peppin

---

A good congress is always a mixing of an excellent scientific program, prepared by the Scientific Committee, and the “free communications” presented by some of the attendees. The COVID emergencies have contributed to rapidly modify the world of the scientific exchange of information and the presentation of the researches’ result by anyone interested in science evolution. In the past, the abstracts of lectures, posters and oral presentations were included in a volume that was distributed at the participants to the congress. That material had a clear destiny: a rapid oblivion.

Since the first edition, the organizers of the **Roma Pain Days**, which was already an “hybrid” congress, have tried to publicize much more the results of the many, many researchers willing to present their results to the large public. In fact, all the abstracts of the #RPD2021 were published in the Cureus Academic Channel of the Paolo Procacci Foundation, organizer of the congress - <https://www.cureus.com/channels/ppf/abstracts>. This year the Scientific Committee has decided to publish the abstracts on an indexed journal, agreeing with the GM of *Signa Vitae* (<https://www.signavitae.com>) to have all the accepted abstracts published by them. *Signa Vitae* is a growing and thrilling journal whose impact in the scientific world interested in Anesthesiology, Emergency, Intensive Care, and Pain Medicine is already well established. The Scientific Committee of the #RPD2022 and I thank the General Management of the journal for their kindness and generosity. I am more than sure that this will be of a mutual benefit for the researchers and the journal’s visibility. *Ad majora* for a future, increasing cooperation in favor of the science diffusion.

### 01. Complex regional pain after stroke: atypical case report

Marwa Ghanmi<sup>1,\*</sup>, Mariem Gaddour<sup>1</sup>, Nedra El Feni<sup>2</sup>, Walid Wannas<sup>3</sup>, Sonia Jemmi<sup>3</sup>

<sup>1</sup>*Physical medicine and rehabilitation hospital of Sahloul Sousse, Tunisia;* <sup>2</sup>*Physical medicine and rehabilitation hospital of Kairouan, Tunisia;* <sup>3</sup>*Physical medicine and rehabilitation hospital of Sahloul, Tunisia.*

\*Corresponding Author: Marwa Ghanmi ([ghanmy.maroua@gmail.com](mailto:ghanmy.maroua@gmail.com))

**Introduction and purpose:** The frequency of shoulder pain in hemiplegic patients varies from 5 to 84% of post-stroke









<sup>1</sup>Aretaieio University Hospital, NKUA, Athens, Greece; <sup>2</sup>Yale University School of Medicine, New haven, United States; <sup>3</sup>University of Thessaly, School of Health Sciences, Karditsa, Greece; <sup>4</sup>Attikon University Hospital, NKUA, Athens, Greece.  
\*Corresponding Author: Martina Rekatsina ([mrekatsina@gmail.com](mailto:mrekatsina@gmail.com))

**Objectives:** Emergency Departments (EDs) in Greece are staffed by different specialties. We performed a survey to understand perceptions among emergency physicians inside the ED regarding acute pain assessment and management.

**Methods:** We conducted a cross-sectional study using a structured anonymous questionnaire, among a random sample of doctors working in four different tertiary hospitals of Athens and rural regions. The data were analyzed using descriptive statistics and statistical significance tests via R-Studio, version 1.4.1103.

**Results:** Results from 101 questionnaires, show suboptimal knowledge and attitudes regarding acute pain management among emergency healthcare providers in Greece. Additionally, certain parts of the population such as young children and pregnant women receive suboptimal analgesia.

### Knowledge and Skills (Percentage)

#### Awareness of:

- *multimodal analgesia (48%)*
- *newer pain treatment methods (41%)*
- *pain management:*
  - *seminars (16%)*
  - *protocols in their workplace (26%)*
- *administering opioids (32%)*

#### Beliefs and Attitudes:

- *Analgesia is “time consuming” (58%)*
- *Distraction from pain serves as indication if less severe pain (56%)*
- *Placebo administration is an appropriate way of judging the truth behind one’s pain allegations (52%)*
- *Fear of administering opioids due to their side effects (51%)*
- *Fear administering opioids due to fear of hindering a potential diagnosis (38%)*

Paracetamol, NSAIDs and opioids such as tramadol and morphine appeared to be highly reachable, while drugs like fentanyl, ketamine, oxycodone, and adjuncts to analgesia were more rarely used. Demographic correlations between participants showed that clinical experience and pain management education were associated with a better response profile on the questionnaire. Specialties with a core training containing pain education (anesthesiologists, emergency physicians) as expected, showed better awareness, beliefs and attitudes.

**Conclusions:** Pain Educational programs along with standardized algorithms should be developed to cover existing needs and misconceptions. Studies on a nation-wide level, will help understanding the level of acute pain management in Greece and whether the urban or the rural environment plays any role in pain alleviation in the ED.

## 09. Results of using transversus abdominis plane (TAP) block as a component of multimodal analgesia in patients undergoing solid organ transplantation

Ravshan Aliyevich Ibadov<sup>1</sup>, Ilyas Ablyalimov<sup>1</sup>, Sardor Ibragimov<sup>1,\*</sup>, Suhrob Ergashev<sup>1</sup>

<sup>1</sup>Republican Specialized Scientific and Practical Medical Center of Surgery named after academician V. Vakhidov, Tashkent, Uzbekistan.

\*Corresponding Author: Sardor Ibragimov ([dr.sardor.ibragimov@gmail.com](mailto:dr.sardor.ibragimov@gmail.com))

**Objective:** To present the experience of using and comparative evaluation of the use of TAP block as a component of







































### 37. Iatrogenic Associated Respiratory Depression: The need for innovation

Joseph Pergolizzi<sup>1,2,\*</sup>

<sup>1</sup>NEMA Research Group, Naples, USA; <sup>2</sup>Paolo Procacci Foundation, Roma, Italy.

\*[joseph@advantx.org](mailto:joseph@advantx.org)

#### **Abstract:**

Iatrogenic-associated respiratory depression is experienced in a cadre of clinical scenarios, including but not limited to postsurgical recovery. Postsurgical recovery is influenced by multiple pre-, intra- and perioperative pharmacotherapeutic interventions, including administering medications that can induce respiratory depression postoperatively. Pre-, intra- and perioperative medications are commonly administered for anxiety, anesthesia, muscle relaxation and pain relief, among other reasons. Several drugs alone or in joint action can be additive or synergistic, producing respiratory depression. Given the large number of surgical procedures performed each year, even a small percentage of postoperative respiratory complications translates into a large number of affected patients. It is a significant medical problem and a burden on hospital resources. New strategies are needed to prevent and treat the acute and collateral issues associated with postoperative respiratory depression.

We present a concise overview of the topic, including the nature and magnitude of the problem, contributing factors, currently limited options, and potential novel therapeutic approach.

### 38. Cocaethylene: The Dangerous Combination of Alcohol and Cocaine

Joseph Pergolizzi<sup>1,\*</sup>, Frank Breve<sup>1</sup>, Jo Ann LeQuang<sup>1</sup>, Giustino Varrassi<sup>2</sup>

<sup>1</sup>NEMA Research Group, Naples, USA; <sup>2</sup>Paolo Procacci Foundation, Roma, Italy.

\*Corresponding Author: Joseph Pergolizzi ([joseph@advantx.org](mailto:joseph@advantx.org))

**Objective:** When cocaine and ethanol are used together, a psychoactive metabolite is produced which has potentially life-threatening cardiotoxic effects. This metabolite, known as cocaethylene, is more toxic to the cardiovascular and hepatic systems than the parent drug and has a longer plasma elimination half-life (~2 hours compared to 1 hour).

**Methods:** This was a narrative review of peer-reviewed literature using the keywords “cocaethylene” with emphasis on newer studies (<5 years).

**Results:** The metabolic pathway of cocaine is altered by ethanol such that cocaethylene is produced. This is the only known instance of a psychoactive substance produced entirely within the body. While cocaethylene has similar effects as cocaine, there are pharmacodynamic distinctions. Cocaethylene has slower clearance, a larger volume of distribution, and a longer half-life. Cocaethylene, a powerful sodium channel blocker, increases heart rate and blood pressure to a greater extent than cocaine and is believed to be more than 10 times as cardiotoxic as the parent molecule. Few patients understand the effects of alcohol with cocaine. Likewise, emergency healthcare workers who may treat patients with cocaine-induced adverse events need to be aware of how ethanol and cocaine may produce adverse effects that are more powerful and longer-lasting than one might assume would occur with cocaine alone.

**Conclusion:** Many people who use cocaine take it together with alcohol and are unaware that this may cause a manifold increase in toxicity. Increasing polysubstance use has shown that cocaine and alcohol is a popular drug combination. Greater awareness is needed among drug users and healthcare workers about this powerful and potentially dangerous combination.



### 39. Multimechanistic Single-Entity Combination Products for Control of Chronic Pain

Joseph V. Pergolizzi, Jr.<sup>1,\*</sup>, Flaminia Coluzzi<sup>2</sup>, Frank Breve<sup>1</sup>, Jo Ann LeQuang<sup>1</sup>, Giustino Varrassi<sup>3</sup>

<sup>1</sup>NEMA Research Group, Naples, USA; <sup>2</sup>University of Roma, Roma; <sup>3</sup>Paolo Procacci Foundation, Roma, Italy.

\*Corresponding Author: Joseph Pergolizzi ([joseph@advantx.org](mailto:joseph@advantx.org))

**Objective:** The atypical opioids of tramadol, tapentadol, and cebranopadol are novel analgesics with two mechanisms of action in a single molecule. This is a short review of their function and clinical application for chronic pain syndromes.

**Methods:** This was a narrative review of these three agents for use in chronic cancer and chronic noncancer pain patients.

**Results:** Tramadol is a centrally acting analgesic and weak opioid and is sometimes further combined with a nonopioid. Tramadol has been found effective in treating musculoskeletal pain and pain of osteoarthritis, it is not effective in treating neuropathic pain. The evidence supporting the use of tramadol for treatment of cancer pain is limited.

Tapentadol has been effective in treatment chronic low back pain with a neuropathic component, diabetic polyneuropathic pain, and it is also effective against many types of musculoskeletal pain. Tapentadol was found noninferior to oxycodone for treating cancer pain.

Cebranopadol, not approved to market, is a novel first-in-class analgesic that combined a mu-opioid-receptor agonist with activity at the nociception/orphanin (NOP) FQ peptide receptors. It has been studied in patients with chronic low back pain and cancer pain. Cebranopadol was noninferior to morphine in a study for cancer pain analgesia.

All of these agents are associated with potentially treatment-limiting adverse events.

**Conclusion:** Atypical opioids with dual mechanisms of action in a single molecule represent an important analgesic innovation and may help provide effective pain control while limiting opioid exposure and enhancing patient safety.

### 40. The Role of NSAIDs in the Management of Acute Postoperative Pain Following Oral Surgery

Joseph V. Pergolizzi, Jr.<sup>1,\*</sup>, Frank Breve<sup>1</sup>, Jo Ann LeQuang<sup>1</sup>, Giustino Varrassi<sup>2</sup>

<sup>1</sup>NEMA Research Group, Naples, USA; <sup>2</sup>Paolo Procacci Foundation, Roma, Italy.

\*Corresponding Author: Joseph Pergolizzi ([joseph@advantx.org](mailto:joseph@advantx.org))

**Objective:** Non-steroidal anti-inflammatory drugs (NSAIDs) are a broad class of analgesic agents that can be safe and effective in the treatment of acute postoperative pain. Since NSAIDs reduce inflammation, they may be particularly well suited to this role, but side effects must be considered. Our goal was to explore recent literature on the role of current and emerging NSAIDs for use in postoperative pain following oral surgery.

**Methods:** This is a narrative review based on a literature search for peer-reviewed articles reporting on clinical trials that used one or more NSAIDs to treat postoperative pain after oral surgery.

**Results:** The most frequently prescribed NSAIDs are naproxen and ibuprofen and were found to be effective in pain control; ibuprofen was effective at 400 mg with only modest or no incremental benefit at higher doses. NSAIDs can be combined with other agents, such as dexketoprofen (which can be used as monotherapy) with tramadol. Head-to-head trials failed to show a clearly superior analgesic agent. Side effects were relatively limited as most analgesia was administered as a single dose or very short course of treatment (2–3 days).

**Conclusion:** NSAIDs are safe effective pain relievers for controlling acute pain after oral surgery. The armamentarium is varied and agents may be effectively combined or used as monotherapy. They are well tolerated over a short course of treatment.

## 41. What is Old is Now New Again: Nitazenes as Street Drugs

Joseph V. Pergolizzi, Jr.<sup>1,\*</sup>, Robert Raffa<sup>2</sup>, Frank Breve<sup>1</sup>, Jo Ann LeQuang<sup>1</sup>, Giustino Varrassi<sup>1,3</sup>

<sup>1</sup>NEMA Research Group, Naples, USA; <sup>2</sup>Univ Arizona, Temple Univ, Neumentum, Enalare, Advantx (Tucson, AZ) - United States; <sup>3</sup>Paolo Procacci Foundation, Roma, Italy.

\*Corresponding Author: Joseph Pergolizzi ([joseph@advantx.org](mailto:joseph@advantx.org))

**Objective:** Nitazenes were first developed in the 1950s as drug candidates to substitute for morphine, but none were ever cleared to market. In the past years, nitazenes have been detected on autopsy in overdose deaths and in street drug supplies. Our goal was to explore the idea of these older abandoned drugs finding “new life” as dangerous street drugs.

**Methods:** This is a narrative review of peer-reviewed literature on nitazenes combined with materials from authoritative websites. There is a paucity of information available on nitazenes as the latest street drug.

**Results:** The commercial failure of nitazenes led to a general lack of academic interest in them until clandestine laboratories started to manufacture them illicitly and introduce them to the recreational drug market in Europe and North America. A variety of nitazene analogs are available and some are more potent than fentanyl. Isotonitazene is likely the most prevalent of these new street drugs. The clinical implications are that first responders and emergency medicine professionals may see cases of overdose or profound respiratory depression associated with these highly potent new drugs. Naloxone can reverse nitazenes but dosing is unclear as nitazenes may be both highly potent and impure. Nitazenes are often combined with other drugs either at the point of sale (nitazene-laced heroin, for example) or by the end use (polysubstance use).

**Conclusion:** Nitazenes as recreational drugs pose enormous clinical challenges as they are highly potent and are associated with overdose-related morbidity and mortality. Healthcare professionals as well as recreational drug users need to be more aware of these “new old drugs.”

## 42. Persistent hiccups after a single dose of dexamethasone injection for lateral epicondylitis (tennis elbow): A case report and mini review

Martina Rekatsina<sup>1,\*</sup>, Athina Vadalouca<sup>2</sup>, Giustino Varrassi<sup>3</sup>

<sup>1</sup>Aretaieio University Hospital, National and Kapodistrian University of Athens, Greece; <sup>2</sup>Medical School, University of Athens, Athens, Greece; <sup>3</sup>Paolo Procacci Foundation, Roma, Italy.

\*Corresponding Author: Martina Rekatsina ([m.rekatsina@gmail.com](mailto:m.rekatsina@gmail.com))

**Background:** Corticosteroids are known to have multiple systemic effects and side effects. Hiccups induced by steroids is an uncommon side effect and although not life threatening, it can be significantly annoying for the individual.

**Case Report:** We are presenting the case of a fit 46-year-old Caucasian male who developed persistent hiccups for 48 h, 1 hour after periarticular lateral epicondyle injection with 6.6 mg of dexamethasone. The hiccups was severe and intolerable, and prevented patient from sleeping. The patient had a history of vitiligo. On further questioning the patient recalled a past incident of persistent hiccups (72 h duration) after intramuscular corticosteroid injection for vitiligo treatment.

**Discussion:** Hiccups is an uncommon adverse effect of steroids, with unknown incidence. It is rarely mentioned by clinician during patient information and is possibly not counted as a side effect of steroids. Hiccups is an involuntary, intermittent, spasmodic contraction of the diaphragm and intercostal muscles that can occur at a frequency of 4–60/min [1] and represents a reflex arc made up of several neural pathways, including phrenic and vagus nerves, the sympathetic chain

[2], medulla oblongata and reticular formation, as well as hypothalamus. The phrenic nerve serves as the efferent limb along with additional efferent neural connections to the glottis and inspiratory intercostal muscles [3]. In the literature, there are currently few case reports on use of steroids and hiccups; steroids were used by various routes, doses, and duration of treatment. Among the steroids used were dexamethasone, prednisolone, methylprednisolone, betamethasone acetate/betamethasone sodium phosphate as well as anabolic steroids [4–8]. Impressively, dexamethasone is more frequently associated with hiccups [4, 9]. The speculated mechanism is that steroids lower the synaptic transmission threshold in the midbrain and directly stimulate the hiccup reflex arc [10].

**Conclusions:** Although hiccup is not usually reported as a side effect of steroids, there must be increased suspicion when patients present with it after administration. Patient information is also important as it can have significant impact on the individual.

## Reference

- [1] Samuels L. Hiccup; a ten year review of anatomy, etiology, and treatment. *Canadian Medical Association Journal*. 1952; 67: 315–322.
- [2] Lembo A. Hiccups. 2022. UpToDate. Available at: [https://www.uptodate.com/contents/hiccups?search=hiccup&source=search\\_result&selectedTitle=1~150&usage\\_type=default&display\\_rank=1](https://www.uptodate.com/contents/hiccups?search=hiccup&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1) (Accessed: 05 July 2022).
- [3] Kobayashi Z, Tsuchiya K, Uchihara T, Nakamura A, Haga C, Yokota O, *et al*. Intractable hiccup caused by medulla oblongata lesions: a study of an autopsy patient with possible neuromyelitis optica. *Journal of the Neurological Sciences*. 2009; 285: 241–245.
- [4] Sugandhavesa N, Sawaddiruk P, Bunmaprasert T, Pattanakuhar S, Chattipakorn SC, Chattipakorn N. Persistent severe hiccups after dexamethasone intravenous administration. *The American Journal of Case Reports*. 2019; 20: 628–630.
- [5] Habib G, Artul S, Hakim G. Annoying hiccups following intra-articular corticosteroid injection of betamethasone acetate/betamethasone sodium phosphate at the knee joint. *Case Reports in Rheumatology*. 2013; 2013: 829620.
- [6] Peacock ME. Transient hiccups associated with oral dexamethasone. *Case Reports in Dentistry*. 2013; 2013: 426178.
- [7] Eze, C., Nnaji, T., Nwobodo, M. Persistent hiccups following use of oral dexamethasone: a report of two cases from abakaliki, Nigeria. *Case Reports in Clinical Medicine*. 2020; 9: 282–287.
- [8] Egbu E, Ihemedu C, Eze UA, Nwajei C, Ikponmwosa M. Steroid-induced hiccups in a patient managed for pseudo foster-kennedy syndrome: a case report of good outcome with the use of gabapentin. *Cureus*. 2021; 13: e12893.
- [9] Dickerman, R. D., & Jaikumar, S. The hiccup reflex arc and persistent hiccups with high-dose anabolic steroids: is the brainstem the steroid-responsive locus? *Clinical neuropharmacology*, 2001; 24: 62–64.
- [10] Davis, J. N. An experimental study of hiccup. *Brain*. 1970; 93: 851–872.