Hyoscine butylbromide associated psychosis

Durga Neupane[1], Nimesh Lageju[1], and Lokesh Jaiswal[1]

[1]BP Koirala Institute of Health Sciences

April 16, 2024

Hyoscine butylbromide associated psychosis

Durga Neupane[1], Nimesh Lageju[1], Lokesh Shekher Jaiswal[2]

B.P. Koirala Institute of Health Sciences, Dharan, Nepal

Department of Surgery(Division of CTVS), B.P. Koirala Institute of Health Sciences, Dharan, Nepal

Authors

Durga Neupane

Email: neupanedurga26@gmail.com

ORCID iD

https://orcid.org/0000-0002-9736-9335

Nimesh Lageju

Email:Nimesh.lageju@yahoo.com

ORCID iD

https://orcid.org/0000-0002-1411-5867

Lokesh Shekher Jaiswal

Email: lokesh_shekher@yahoo.com

ORCID ID

https://orcid.org/0000-0002-0813-8747

Corresponding author

Durga Neupane

Email: neupanedurga26@gmail.com

ORCID iD

https://orcid.org/0000-0002-9736-9335

Word count: 512

Running title: Hyoscine induced psychosis

Keywords: hyoscine butylbromide; psychosis; children; abdominal pain; side effect

Abdominal pain is reported by a third of school-aged children (Saps M, Seshadri R, et al. 2009). Although the use of analgesia to treat acute abdominal pain is well-supported (Falch C, Vicente D, et al. 2014), there is little evidence to lead the management of nonspecific abdominal pain in the emergency department, which accounts for two-thirds of cases of abdominal pain presenting to the emergency department. In the pediatric study, hyoscine butylbromide, 10 mg given orally, was found to be beneficial compared to a homeopathic preparation with no serious adverse effects (Müller-Krampe B, Oberbaum M, et al. 2007).

A 9-year-old female child was brought to the OPD with a history of non-specific colicky abdominal pain. The attending physician assessed and prescribed her 20 mg hyoscine butylbromide to be taken three times a day for three days. The patient went home and took her first dose during the noon and the other before going to bed. Suddenly, at midnight, she woke up and started to show unusual behaviour. She screamed and told that something was crawling over her back, suggestive of tactile hallucination. She experienced visual and auditory hallucinations as explained by her parents. Then, she was rushed to the emergency department at the same hospital and was clinically assessed. The on-duty doctor found to have features of acute psychosis in her and was referred to psychiatrist.

A diagnosis of drug induced psychosis was established. She was asked to withdraw the drug and her psychotic features gradually disappeared and was back to her usual state of health after few days.

Bulut et al presented a young female patient who progressively developed a series of complex neuropsychiatric symptoms including ataxia, slurred and rambling speech, stereotypic movements, vivid visual and auditory hallucinations, and self-mutilative behaviours in the days following the injection of hyoscine butylbromide in the emergency room to treat her menstrual cramps. A diagnosis of acute psychosis was established and was started on olanzapine. After few weeks, her condition was resolved (Bulut NS, Arpacıoğlu ZB. 2020).

Poonai et al randomly assigned children aged 8–17 years with nonspecific colicky abdominal pain who presented to the pediatric emergency department of London Health Sciences Centre, London, Ontario to receive hyoscine butylbromide, 10 mg given orally, or acetaminophen, 15 mg/kg given orally (maximum 975 mg) (Poonai N, Kumar K, et al. 2020). Hyoscine butylbromide was not superior to acetaminophen in this setting. Adverse effects in the emergency department were reported by 32/116 (27.6%) participants in the hyoscine butylbromide group. Common side effects were nausea, vomiting, dizziness, and photosensitivity. There were no serious adverse effects (Poonai N, Kumar K, et al. 2020).

Only few studies have shown the safety and efficacy of hyoscine butylbromide in alleviating abdominal pain in children without any severe adverse effect like acute psychosis being reported. The aforementioned case was a rare side effect of the drug. With this correspondence, we would like to reflect a message that hyoscine butylbromide should be used carefully in children, along with the emphasis on correct dose, frequency and experience of the practicing clinician.

Conflict of interests: None

References

1. Bulut, N. S., & Arpacıoğlu, Z. B. (2020). Acute onset psychosis with complex neurobehavioural symptomatology following the intramuscular injection of hyoscine butylbromide: a case report with an overview of the literature. *European journal of hospital pharmacy : science and practice* , ejhpharm-2020-002583. Advance online publication. https://doi.org/10.1136/ejhpharm-2020-002583
2. Falch, C., Vicente, D., Häberle, H., Kirschniak, A., Müller, S., Nissan, A., & Brücher, B. L. (2014). Treatment of acute abdominal pain in the emergency room: a systematic review of the literature. *European journal of pain (London, England)* , *18* (7), 902–913. https://doi.org/10.1002/j.1532-2149.2014.00456.x
3. Müller-Krampe, B., Oberbaum, M., Klein, P., & Weiser, M. (2007). Effects of Spascupreel versus hyoscine butylbromide for gastrointestinal cramps in children. *Pediatrics international : official journal of the Japan Pediatric Society* , *49* (3), 328–334. https://doi.org/10.1111/j.1442-200X.2007.02382.x
4. Poonai, N., Kumar, K., Coriolano, K., Thompson, G., Brahmbhatt, S., Dzongowski, E., Stevens, H.,

Gupta, P., Miller, M., Elsie, S., Ashok, D., Joubert, G., Lim, R., Bütter, A., & Ali, S. (2020). Hyoscine butylbromide versus acetaminophen for nonspecific colicky abdominal pain in children: a randomized controlled trial. *CMAJ : Canadian Medical Association journal = journal de l'Association medicale canadienne* , *192* (48), E1612–E1619. https://doi.org/10.1503/cmaj.201055

5. Saps, M., Seshadri, R., Sztainberg, M., Schaffer, G., Marshall, B. M., & Di Lorenzo, C. (2009). A prospective school-based study of abdominal pain and other common somatic complaints in children. *The Journal of pediatrics* , *154* (3), 322–326. https://doi.org/10.1016/j.jpeds.2008.09.047