

Fentanyl Patch Ingestion in an Infant with Endoscopic Retrieval



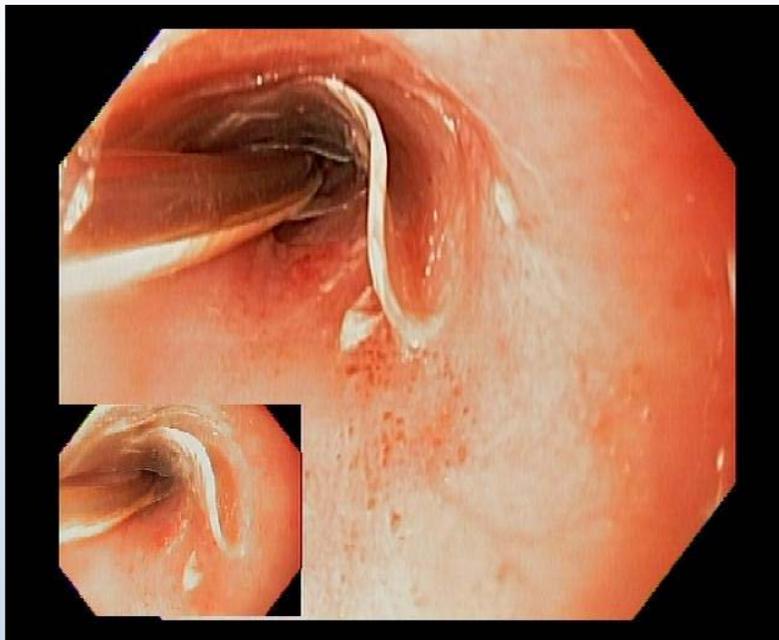
Background

- Fentanyl Patches are often used for prolonged analgesia in patients with chronic pain
- Intentional ingestions have previously been reported¹
- No prior reports of accidental ingestion in an infant
- No current guidelines exist for whole bowel irrigation (WBI) in patient's less than 9 months old²

Hypothesis

- Given that WBI has been inadequately studied in patients less than 9 months old, endoscopic retrieval may be the preferred management modality in this population to attempt to limit a prolonged ICU course after fentanyl patch ingestion

Figure 1



Case

- 8 month old female seen in the Emergency Department after a home respiratory arrest
- She had been sleeping on her grandmother's chest when she was noted to have sudden loss of tone
- Rescue breathing and blind mouth sweep were performed by her grandmother at the scene
- Exam on arrival showed agonal breathing and pinpoint pupils
- Initial interventions included:
 - Intubation for airway protection
 - A trial of naloxone with return of tone and pupillary response
- Further history determined her grandmother had been wearing a 75 mcg/hr fentanyl patch on her chest which was now missing
- 2 hours after initial naloxone, she again exhibited decreased muscle tone and pinpoint pupils
- Second dose of naloxone given with good response
- Pediatric gastroenterology was consulted for endoscopy
- Endoscopy was performed and showed a foreign body in the mid-esophagus (fig. 1)
- Foreign body was removed and showed a single 75 mcg/hr fentanyl patch (fig. 2)
- After patch removal, patient improved and was able to be extubated later that day

Figure 2



Discussion

- A 75 mcg/hr fentanyl patch contains more than 12.9 mg of fentanyl
- Even patches considered used up can contain more than 50% of their original fentanyl content³
- There are no current guidelines for WBI in patients less than 9 months old²

Conclusion

- Fentanyl patch ingestion can cause prolonged opioid toxicity
- Endoscopy should be considered for infants when fentanyl patch ingestion is suspected

References

- 1 Teske J, Weller JP, Larsch K, Troger HD, Karst M. Fatal outcome in a child after ingestion of a transdermal fentanyl patch. *International journal of legal medicine.* 2007 Mar;121(2):147-51.
- 2 Position paper: whole bowel irrigation. *Journal of toxicology Clinical toxicology.* 2004;42(6):843-54.
- 3 Marquardt KA, Tharratt RS, Musallam NA. Fentanyl remaining in a transdermal system following three days of continuous use. *The Annals of pharmacotherapy.* 1995 Oct;29(10):969-71.

