Author's response to reviews

Title: Subcutaneous emphysema and pneumomediastinum following cocaine inhalation: A case report

Authors:

Deanne S Soares (deanne.soares@gmail.com)
Anna Ferdman (aferdman@gmail.com)
Rozanna Alli (rozanna_a@hotmail.com)

Version: 4 Date: 2 July 2015

Author's response to reviews: see over
Dear Prof Megarbane, Dr. Henlín and Dr. Santini,

Thank you all for your time and consideration of this manuscript, my first case report as a junior medical professional. I appreciate and value all the comments made by each of you and have revised the manuscript based on this advice. Please see my specific responses to each of your reports below:

**Report 1: Bruno Megarbane**

Thank you for thinking this case is worth reporting. Whilst the association of subcutaneous emphysema and pneumomediastinum with use of cocaine has been previously reported, it is not that well established in the literature specifically with nasal inhalation. I was working as a general surgical registrar at the time, when I was called by the emergency staff to assess and manage this patient and it was abundantly clear that this was a rare case and the lack of knowledge with regards to the management/investigative process in this situation became apparent amongst the staff working there overnight, including myself. As such, I do believe there is value in this report for emergency workers as well as those working within certain surgical specialties.

As per your suggestions, I have made changes to my abstract and have expanded my discussion to clarify the different mechanisms of intra-thoracic hyper-pressure accompanying drug inhalation. I have also referred to the article that you suggested.

**Report 2: Tomás Henlín**

Thank you for your input and your keen eye. I appreciate that you believe this would probably be a useful addition to the medical literature.

**Report 3: Mario Santini**

Thank you for your input and critique of my manuscript. With regards to the reporting of relevant physical examination findings, I believe that I have already included this in my case report. The only other relevant physical examination finding would have been Hamman’s sign. However, there was no mention at any stage of this finding in his notes and so I cannot definitively comment on whether this sign was present. With regards to the timeline, diagnostic assessments, interventions and follow up, these are reported in this manuscript and there is no additional information that could be included. Also, I do have written consent from this patient to publish this case.

With regards to your additional comments, I have made changes to expand and further discuss the link between cocaine inhalation, barotrauma and pneumomediastinum and subcutaneous emphysema and included a few more references. As for other radiological findings associated with cocaine use, the literature does mention this, however there seems to be a distinction made between chronic and intermittent use of cocaine. In this case, the patient had only intermittently used cocaine previously. This could explain why none of the other signs were seen on CT imaging. Also, the literature that looks at the
pulmonary sequelae of cocaine use is often in those who smoke “crack cocaine” or freebase cocaine and those who inject it intravenously. As this was not the case with this patient, I am not surprised that there were no additional radiological signs of ‘cocaïne lung’ seen here. It is likely that it was the barotrauma associated with the nasal inhalation of cocaine that caused the subcutaneous emphysema and pneumomediastinum and this is discussed in the paper, but the reason I think it is worth reporting is because there are not many other reports that have found this with nasal inhalation of cocaine as opposed to smoking the drug and which potentially changes the demographic of the patient that this would be applicable to.

I hope that this satisfies any concern that any of you may have had and I hope that you find this report worth publishing.

Kind regards,

Deanne Soares