A case of intra-operative anaphylaxis due to contrast dye with a protracted post-operative course

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Intraoperative anaphylaxis has an incidence of 1/4000 – 1/10000, is most commonly caused by NMDBs, and can present with cutaneous, respiratory and cardiovascular symptoms. Another offending agent includes iodinated contrast media (ICM), causing various reactions: ranging in severity from hives to cardiovascular collapse and death. The mechanism of ICM mediated reactions can be immunologic via IgE mediated mast cell and basophil degranulation, or anaphalactoid via complement, bradykinin and direct histamine release, but the presentation is indistinguishable. We present a challenging case of a patient with intraoperative anaphalaxis due to ICM presenting with fulminant hypotension and severe and intractable bronchospasm. Additionally, the patient continued to have a protracted course in the ICU over 7 days, requiring epinephrine and ketamine infusions. Intraoperatively the patient was treated with epinephrine IV, high dose IV steroids, H1 and H2 blockers, b2 agonists, IV magnesium and IV ketamine boluses and ketamine infusion. A literature review of these treatment modalities is presented.