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| **Anaphylaxis to short-acting beta-2 agonists in asthmatic adult.** |
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| **Introduction:** Acute asthma is potentially life-threatening. Short-acting beta agonists (SABAs) are critical in acute asthma management. We describe a case of an asthmatic who presented with life-threatening bronchospasm and anaphylaxis to salbutamol.**Case Report:** A 58-year-old woman with asthma previously well-controlled by inhaled corticosteroid/long-acting beta agonist (ICS/LABA) budesonide/eformoterol as needed, presented with mild wheeze after dinner. Her condition deteriorated rapidly following use of a friend’s salbutamol reliever. In addition to wheeze, she developed widespread itch. Paramedics found her in acute respiratory distress, hypoxic, speaking 2-3 word phrases. After failure of nebulised salbutamol, nebulised ipratropium and oral dexamethasone, intramuscular adrenalin was given with good response. She was discharged from the Emergency Department following recovery and a period of observation.Serum tryptase was acutely elevated, at 16.1 ug/L ( N<11.4). Lung function testing before assessment in the Asthma Clinic identified normal baseline spirometry. Salbutamol then precipitated acute bronchospasm and a 31% fall in FEV1.Salbutamol allergy was suspected in Asthma Clinic and skin prick testing to neat salbutamol (nebule) confirmed a 5mm wheal, with a 5mm histamine control and appropriate negative control. The patient was prescribed an EpiPen and strongly cautioned to avoid SABAs. She was prescribed an ICS/LABA as preventer and reliever.Acute (paradoxical) bronchospasm from excipients and preservatives is well described but the incidence has fallen with current salbutamol metered dose inhalers, as they only contain microcrystalline salbutamol and HFA propellant, with no other excipients. **Conclusion:** Healthcare providers should be aware of anaphylaxis to salbutamol and paradoxical bronchospasm. Administration of SABAs for bronchospasm may lead to catastrophic consequences. Adrenalin is the cornerstone of anaphylaxis management. The skin involvement, elevated tryptase and positive skin test of our case is consistent with an IgE-mediated allergy/anaphylaxis to salbutamol. Our case was managed with an ICS/LABA regimen, with no significant clinical cross-reactivity to eformoterol. |