Salbutamol/theophylline

Hyperlactacidaemia: case report

While being treated with salbutamol [albuterol] and theophylline [dosages not stated] for acute asthma, a girl [age not stated] developed a sharp increase in lactate levels [duration of treatment to reaction onset not stated]. Although she exhibited no clinical signs of compromised blood circulation and transcutaneous oxygen saturations remained normal, laboratory investigations revealed a disturbance of pyruvate utilisation which caused hyperlactacidaemia. [Patient outcome not stated].

Author comment: "This adds evidence to a previously proposed hypothesis that β_2 -adrenergic agonists through promotion of lipolysis induce impairment of pyruvate dehydrogenase. The same mechanism could apply to hyperlactic acidosis secondary to theophylline overdosing."

Kovacevic A, et al. Hyperlactic acidosis as metabolic side-effect of albuterol and theophylline in acute severe asthma. 18th Annual Congress of the European Respiratory Society : abstr. P3981, 4 Oct 2008. - Germany 801127976