Tumescent liposuction complications

Lidocaine is the preferred local anesthetic (complications from toxicity can arise)

  recommended dose is 35-45 mg/kg and doses should not exceed 55 mg/kg wt.
  recommended concentration of epinephrine in tumescent solutions is 0.25-1.5 mg/L.
    - not to exceed 50 microg/kg.

side effects: bruising, hematomas, seromas, and pain.


Abstract

BACKGROUND: The technique of tumescent liposuction involves the subcutaneous infusion of a solution containing lidocaine, followed by the aspiration of fat through microcannulas. Although the recommended doses of lidocaine are as high as 55 mg per kilogram of body weight, few safety data are available. Since reporting of adverse events associated with tumescent liposuction is not mandatory, the incidence of complications and deaths is unknown.

METHODS: We identified 5 deaths after tumescent liposuction among 48,527 deaths referred to the Office of Chief Medical Examiner of New York City between 1993 and 1998. The patients' records and postmortem examination results were reviewed to identify common contributory factors.

RESULTS: The five patients had received lidocaine in doses ranging from 10 to 40 mg per kilogram. Other drugs, such as midazolam, were also administered. Three patients died as a result of precipitous intraoperative hypotension and bradycardia with no definitively identified cause. Postmortem blood lidocaine concentrations in two of the patients were 5.2 and 2 mg per liter. One patient died of fluid overload, and one died of deep venous thrombosis of calf veins with pulmonary thromboembolism after tumescent liposuction of the legs.

CONCLUSIONS: Tumescent liposuction can be fatal, perhaps in part because of lidocaine toxicity or lidocaine-related drug interactions.