



H101 Fatal Complications of Aesthetic Techniques: Gluteal Liposculpture

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After attending this presentation, attendees will be able to: (1) list the complications found in six fatalities associated with aesthetic techniques, particularly gluteal injections; and, (2) list the demographics, concurrent procedures, and injection materials associated with six aesthetic procedure fatalities.

This presentation will impact the forensic science community by delineating the pathologic processes found in six deaths following gluteal aesthetic techniques.

Background: Cosmetic procedures are common and utilize many techniques to obtain aesthetically good outcomes for patient satisfaction with acceptable safety standards. Cosmetic procedures that involve the gluteal region are becoming increasingly popular as various procedures can target the gluteal region such as liposuction, tumescent liposuction, cosmetic filler injections, autologous fat transfer, depot drug delivery, and implants. Complication of cosmetic gluteal procedures can be localized or systemic with systemic complications being responsible for most deaths. These reported systemic complications include sepsis, thromboembolism, fat embolism with or without fat embolism syndrome, macroscopic fat embolism, anesthesia-related, and volume abnormalities. Herein are reported six deaths due to elective gluteal cosmetic procedures. Autologous fat transfer following liposuction resulted in three out of six fatal outcomes of gluteal aesthetic procedures.

Materials and Methods: The Miami-Dade medical examiner computer database was queried for all deaths relating to cosmetic procedures involving the gluteal region from the period 2003-2016. All manners of death were considered and included in the query.

Results: Six cases were found that resulted from gluteal procedures. All six decedents were female with an age range from 28-51 years and five of the women had prior pregnancies with live births. Three cases had fat emboli due to autologous gluteal fat transfer injections associated with liposuction. All three of the decedents were symptomatic within hours of the procedure, with one decedent dying after a ten-day interval. One of the three decedents had macroscopic fat emboli with paradoxical spread secondary to a patent ductus arteriosus. Two decedents died of septic shock following intramuscular gluteal injections. One decedent had transection of the deep sciatic vessels with systemic embolization of foreign material. The average combined lung and heart weights were 1,490 grams and 355 grams, respectively. All cases had pulmonary edema. Toxicology studies on four of the six cases showed no acute intoxications.

Discussion: Gluteal cosmetic procedures carry a risk of death, which may be related to the complex anatomy and rich vascular supply of the region. Fat embolism, microscopic and macroscopic, secondary to autologous gluteal fat transfer associated with liposuction accounted for three of the six deaths in this series. The forensic community will achieve competence in listing the complications that can lead to fatalities in cosmetic gluteal procedures.

Gluteal Injection, Plastic Surgery, Forensic Pathology