

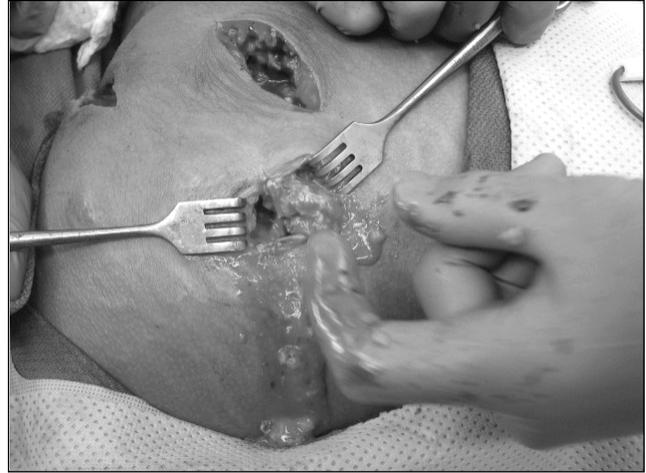


The Creative Clinician

X Marks the Spot: Cosmetic Surgery Gone Awry

Dalila Zachary, MD, Donovan Rosas, MD, Florence Chan, MD, and Karen Tashima, MD

A healthy 21 year-old woman presented to Rhode Island Hospital Emergency Department with intermittent fever for the previous 48 hours. Four days before presentation she received hydrogel buttock injections in a beauty salon in Florida. The majority of the injections were to the right buttock. She stopped the injections to the left buttock due to pain. She was evaluated for a near syncopal event at a hospital in Florida where they attributed her symptoms to a vasovagal episode. She was also diagnosed with cellulitis of both buttocks and given a prescription for cephalexin. Upon arrival home, the patient noticed night sweats and fevers. She also experienced chest pain, shortness of breath, headache, and photophobia. Her past medical history was significant for a remote methicillin susceptible *Staphylococcus aureus* abscess in the groin. On physical examination she had a temperature of 103.4, pulse 113, blood pressure 109/55. The examination was remarkable for “X” markings on both buttocks, more on the right than left. The right buttock was indurated and swollen with some tenderness to palpation. There was no erythema, fluctuance or drainage. The left buttock was less indurated and swollen. The remainder of her examination was normal. Her white blood cell count was 11.4, hemoglobin 8.9, platelet count 155,000. A chest CT-scan did not reveal a pulmonary embolus. Abdomen and pelvis CT-scans and pelvis revealed asymmetric fullness of the right gluteus maximus and medius muscles, with no evidence of organized collection to suggest abscess formation. There was also diffuse subcutaneous stranding. With concern for a possible right buttock infection, the patient was started on intravenous vancomycin and piperacillin-tazobactam. She declined surgical exploration for probable infection, so she was continued on intravenous antibiotics and closely observed. After five days of antibiotics, an area in the right buttock started to spontaneously drain pus. She was then taken to the operating room for incision, drainage and debridement. During the washout, multiple cavities of gross purulence and necrotic fat were found in both buttocks. No organism was ever isolated from the operative specimens. She was continued on vancomycin and piperacillin-tazobactam during her 12-day hospitalization, then changed to ciprofloxacin and trimethoprim-sulfamethoxazole on discharge for 7 days. Her follow-up outpatient appointments with plastic surgery revealed slowly healing bilateral buttock wounds.



Photograph taken during operative washout.
Gross purulence was noted.

DISCUSSION

A number of biological and synthetic injectable fillers have been developed for and used in soft-tissue augmentation and facial contouring since the first attempts at fat transplantation in 1893. Cross-linked polyacrylamide hydrogel, a nondegradable filler, has been approved for facial contouring in Europe, Australia, and Asian countries. The hydrogel itself produces the filling effect. The foreign-body reaction is minimal and transient, and fibrosis is seen only as thin strands of a vascularized network of connective tissue fibers, which anchor the gel in place and prevent migration.¹ The Food and Drug Administration in the United States has not approved it, because of concerns about its efficacy and safety.

Within the past three years, more reports of buttock enhancements using hydrogel, silicone or other similar thick liquids have surfaced from the Northeast to Miami. Across the internet, people are discussing injections of black-market, medical-grade silicone, industrial-grade silicone, or hydrogel as a cheap, fast and easily accessible way to plump up breasts, buttocks, thighs, even wrinkles. These reports raise concerns over the potential administration of unknown chemicals as well as the possibility of organ failure and even death following these injections. A 46-year-old California woman in 2005 died of multiple organ failure after receiving buttock injections of what had been billed as “French polymer” but were actually cooking oil. The beautician who delivered the injections was sentenced to 15 years in prison.² Just this year, a 43 year-old woman in New York died from a silicone pulmonary embolism after receiving injections to her thighs and buttocks,³ and two women in Florida landed in the Intensive Care Unit with or-

gan failure after receiving the so-called hydrogel injections in the buttocks. Investigations revealed they were injected with industrial silicone.⁴

With the potential for irreparable injury and even death befalling those who seek this type of cosmetic surgery, it is imperative that the medical community be aware of this problem and be vigilant in the treatment of possible bacterial infections.

REFERENCES

1. Wolters M, Lampe A. Prospective multicenter study for evaluation of safety, efficacy, and esthetic results of cross-linked polyacrylamide hydrogel in 81 patients. *Dermatol Surg* 2009; 35 (Suppl 1): 338-43.
2. Associated Press. Woman gets 15 years after anti-aging cooking-oil injection killed client. *Fox News* January 18, 2007.
3. Hartocollis A, Davidson C. A cheap, fast and possibly deadly route to beauty. *The New York Times* April 16, 2009.
4. Gorgan E. Two women critical after 'J-Lo Posterior' injections. *Life & Style* February 11, 2009.

Dalila Zachary, MD, is a second year fellow in Infectious Disease.

Donovan Rosas, MD, is a resident in surgery.

Florence Chan is a fourth year medical student.

Karen Tashima, MD, is Associate Professor of Medicine.

All are with the Warren Alpert Medical School of Brown University.

Disclosure of Financial Interests

The authors have no financial interests to disclose.

CORRESPONDENCE

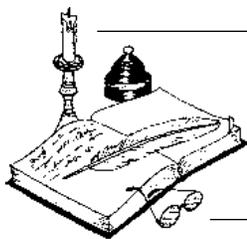
Dalila Zachary, MD

Infectious Disease Clinic, Fain Building, Suite E

164 Summit Avenue

Providence, RI 02906

E-mail: DZachary@lifespan.org



Physician's Lexicon

A Graveyard of Words

December is an inopportune time to explore words pertaining to death, interment and cremation. But these words pertaining to the inevitable departure of humans need to be understood as readily as the terminology that defines births and new human beginnings. The art of medicine, dedicated to the preservation of life, understandably refrains from excessive discussion of the technical features accompanying death. Yet, except for those whose existence is based on denial of reality, the substance of death is there; and it is accompanied by a small vocabulary

of its own. Some are of classical Greco-Latin origin; some Anglo-Saxon and a small number are eponyms.

The word, death, is from the Saxon and Teutonic word, *doth*. Cemetery, stems from the Latin, *coemeterium*, meaning a room to sleep, and is derived earlier from a Greek word meaning 'a place to lie down' which, in turn, is related to a Latin word, *coitus*, meaning a coming together, as in the word coition, or even a sexual union.

The Greek root for death (or that which is extinguished) is *thanato-*, appearing in words such as thanatology (the study of death) and euthanasia (a painless death; using the Greek prefix, *eu-*, meaning well or good.) And then there was William Cullen Bryant's poetic meditation on death called *Thanatopsis*, written at age 17.

Mausolus, was the king of Caria. When he died, he was interred in a magnificent sepulchral monument constructed by his wife, Artemisia, giving rise to the word, mausoleum. A sepulcher descends directly from the Latin, *sepulcrum*, meaning a tomb. The word, tomb, is also from the Greek, *tumbos*, meaning a mound and is cognate with the Latin, *tumulus*, meaning a raised heap of earth.

A sarcophagus—a stone coffin of ancient Greece—literally means that which eats flesh. The Greek root, *sarco-* (as in words such as sarcoidosis, sarcomere and sarcoma) means flesh; and the Greek root, *phagos* (as in words such as phagocyte) means to eat, to consume. A casket is not a diminutive of cask but rather a corruption of the French, *cas-sette*, meaning a box or a chest.

Cremation derives from the Latin, *cremare*, meaning to burn or consume by fire. It has been occasionally pointed out that only the letter 'm' separates the word creation from cremation.

— STANLEY M. ARONSON, MD

