



# “Air Embolism After Buttocks Silicone Injections”

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## HISTORY OF PRESENT ILLNESS

A 23 year-old woman was brought in by her boyfriend who stated that she had passed out at home. The patient complained of generalized weakness and abdominal pain around her belly button for the past two days. She also reported some shortness of breath, chest pain, nausea, vomiting, and a fever over the last 24 hours. She denied any cough, diarrhea, urinary, or vaginal complaints. Her last menstrual period was a week ago. **She denied any past medical history, but it was later elucidated that she had received silicone buttock implants via injections in a Miami motel room one week prior to presentation.**

## VITAL SIGNS & MENTATION

BP = 55 / 39 HR = 119 RR = 18 Temp = 96.7° F O2 Sat = 99% (4 L)

**The patient was lethargic, but speaking at presentation.**

## PHYSICAL EXAMINATION

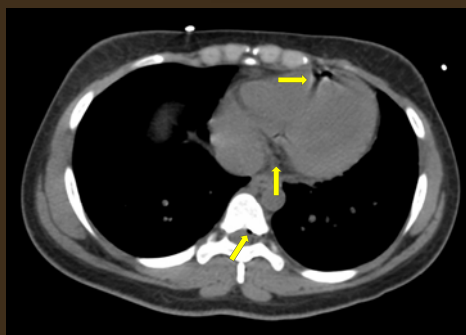
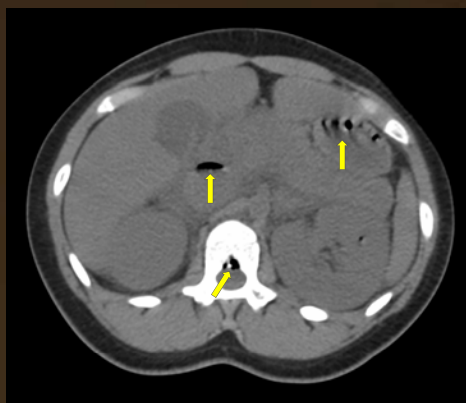
Her abdomen was diffusely tender, especially in the periumbilical region, but without guarding, rigidity or bruising. There were no peritoneal signs. The patient was lethargic and confused, but without any signs of buttock crepitus, swelling, bruising or other abnormalities.

## PERTINENT LABORATORY & ANCILLARY STUDIES

Venous Blood Gas	pH = 7.18; HCO3 = 20
UA / UPT / U TOX	normal / negative / negative
Acetone / Lactic Acid	negative / 7.0
CBC	WBC = 20 (16 % bands)
Chemistries	BUN / Cr = 40 / 3.16
Toxicology:	negative
Chest Radiograph:	normal

## CONTRASTED CT OF THE ABDOMEN / PELVIS

The CT scan revealed extensive air throughout the vascular system, with air bubbles visualized in the vena cava, right ventricle, and throughout the venous system. Additional air was found around the vaginal cuff, uterus, left renal cortex, and stomach. Multiple foci of air were also present in the basivertebral plexus and the prevertebral soft tissues. No air was definitively identified in the arterial system. Additionally, multiple injection granulomas were seen in the bilateral gluteal regions.



## CLINICAL COURSE

HBOT was consulted for the venous air embolism of unclear etiology. Shortly after the arrival of the HBOT staff, the patient became more lethargic and GCS < 8, so the patient was intubated for airway protection and anticipated clinical course.

Given the acute worsening of her altered mental status and the presence of venous air, a presumed diagnosis of AGE was made. The the differential diagnosis also included sepsis. While awaiting transport to HBOT facility, patient received broad spectrum antibiotics, fluids and ultimately required vasopressors.

## HBOT TREATMENT

The patient was brought to a multi-place chamber facility and was started on a Table 6, which was converted to a table 6A when patient failed to show any improvement. The patient tolerated the HBOT without incident and was transferred to ICU.

## OUTCOME

The patient quickly improved, was extubated within 24 hours and maintained stable vital signs. The vasopressors were discontinued and the patient was discharged from the hospital within 48 hours of the treatment.

Follow-up by the patient's primary care physician revealed no neurological deficits and no complaints of pain or any issues involving the silicon injections.

## DISCUSSION

AGE is a disease process involving air bubbles in the arterial system, often caused by decompression disease, iatrogenic causes, hydrogen peroxide ingestion or vaginal insufflation.

This case is highly unusual in that the presentation was delayed by a week from the presumed instigating event as well as coming from a silicon injection to the buttocks. We know of no other similar cases in the literature.

Although air was only found on CT in the venous system, her AMS strongly suggests AGE. This diagnosis is supported with her rapid recovery following HBOT.