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## RSNA Press Release

### Illicit Cosmetic Silicone Injections Carry Lethal Consequences

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CHICAGO — Liquid silicone, which is often used for breast augmentation and other cosmetic procedures, can cause respiratory failure if not injected properly by a licensed physician. A study of individuals who underwent illegal silicone injections revealed a high fatality rate from pulmonary silicone embolism, or obstruction of the lungs. The study was presented today at the annual meeting of the Radiological Society of North America (RSNA).

#### At A Glance

- Liquid silicone can cause respiratory failure if injected improperly.
- Transsexual males constitute the most at-risk population for complications of illicit cosmetic silicone injections.
- Patients with respiratory symptoms who are suspected of having received illicit silicone injections should be examined immediately for pulmonary embolism.

"The illegal use of fluid silicone is a practice that carries life-threatening risks, and the community should be aware of the complications," said Carlos S. Restrepo, M.D., director of chest radiology at the University of Texas Health Science Center, San Antonio.

Dr. Restrepo and colleagues compiled the imaging findings of 44 patients with pulmonary embolism that resulted from illegal silicone injection, constituting the largest case series to date.

Seven patients who presented to the hospital with respiratory distress due to illicit silicone injection were studied, along with an additional 37 cases from the literature. Patients' demographic information, clinical presentation, imaging findings and outcome were analyzed.

"Twenty-five of the patients were transsexual males, and 19 were females," Dr. Restrepo said. "The most common sites of injection were the breast, hips, buttocks, vagina, chest and arms."

All 44 patients experienced respiratory difficulties after receiving the injections, and nearly half experienced fever. One-quarter of the patients died from resultant bleeding in the lungs.

Silicone that is injected improperly travels through the bloodstream and causes blood to coagulate in the lungs, creating circulatory obstructions that can be immediately

life-threatening if not identified and treated quickly. The imaging findings of pulmonary silicone embolism include dark, hazy patches in the lung tissue on x-rays or computed tomography (CT) scans.

"Transsexual males in particular should be checked closely for signs of pulmonary embolism when they show symptoms of respiratory distress and fever," Dr. Restrepo emphasized. Male transsexuals often undergo cosmetic procedures of the breasts, genitalia and other areas to make them appear more feminine.

The U.S. Food and Drug Administration banned silicone injections in 1992, but people still seek them out because they are cheaper and easier to get than professional plastic surgery or hormone therapy and provide immediate results. In surgical clinics, transgender patients are often required to undergo psychological testing before receiving treatment.

Unfortunately, the illicit nature of the injections makes it hard to estimate how common they actually are. However, the increasing popularity of the "pumping party"-where a host will inject a number of people with silicone in the same sitting-indicates both the demand and the ready availability of the substance.

Dr. Restrepo expressed the difficulties of conducting long-term follow-up with patients who present with these complications, because of the underground nature of the practice. It is hoped, he said, that by making the public and the medical community aware of the symptoms and severe consequences of illegal silicone use, mortality risks and patient outcomes from this clandestine practice will improve.

Co-authors are Santiago Martinez-Jimenez, M.D., Jorge Carrillo, Aura L. Rivera and Santiago E. Rossi, M.D.

**Abstract:**

- [Imaging Findings in Pulmonary Silicone Embolism: Report of Seven Cases and Review of the Literature](#)

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RSNA is an association of more than 40,000 radiologists, radiation oncologists, medical physicists and related scientists committed to promoting excellence in radiology through education and by fostering research, with the ultimate goal of improving patient care. The Society is based in Oak Brook, Ill.

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