

CORRECTION

Incorrect Data in Figure: In the Research Letter titled "Feasibility and Acceptability of Google Glass for Emergency Department Dermatology Consultations," published online April 15, 2015, and also in this issue of JAMA Dermatology (doi:10.1001/jamadermatol.2015.0248), an error occurred in the Figure. The information in the second box should have read as follows: "41 (11.8%) Total ED dermatology consultations." This article was corrected online and in print.

NOTABLE NOTES

Radium
Curie’s Perpetual Sunshine

Yusuf Anwar, BA; Eve J. Lowenstein, MD, PhD

"Not to worry," their bosses told them. "If you swallow any radium, it’ll make your cheeks rosy." The women at Radium Dial sometimes painted their teeth and faces and then turned off the lights for a laugh.1

In Orange, New Jersey, circa 1917, the US Radium Corp employed 70 women to manufacture radioluminescent watches for the military. The company coaxed physicians, dentists, and researchers to withhold their data regarding the negative sequela of radium exposure, namely, anemia, bone fractures, and "radium jaw." When employees tried to fight back, a slander campaign involving syphilis was initiated to discredit the women’s reputations. One of the employees, Grace Fryer, after 2 years of searching, found a lawyer willing to take her case. She organized "The Radium Girls," a coalition of 5 women testifying in the lawsuit. A settlement was reached in 1928; the affected employees each received $10 000 in reparations and lifelong health care support. The incredulous story of the Radium Girls echoed the fervor surrounding the use of radium during the 20th century.1

In 1898, radium chloride was extracted from uranium ores by Marie and Pierre Curie. Marie Curie died of aplastic anemia in 1934. It was later discovered that radium replaces calcium in bones and emits alpha particles during decay, leading to cellular mutations and eventually cancer. "Radium therapy" was endorsed by the American Medical Association (1900-1930) to treat arthritis, stomach ailments, and cancer. In the early 1920s, radium was the most valuable substance on Earth, valued at $120 000 per gram.2

In 1918, Bailey Radium Laboratories developed Radithor, advertised as "Perpetual Sunshine." This product was triple-distilled water with about 1 μCi of radium 226. It claimed to "cure stomach cancer, mental illness, and restore sexual vigor and vitality." It was only when Eben Byers, an American industrialist, died of radium poisoning that safety concerns came to the forefront of public awareness. The Wall Street Journal headlines read, "The Radium Water Worked Fine Until His Jaw Came Off." Other radium-based products included radium bread baked in what is now the Czech Republic, radium chocolate in Germany, and radium-based skincare products (Figure). Children played with "atomic energy" toy kits in the 1950s, while men sought radium-based suppositories to restore sexual vitality.3

The initially dubious history of radium illustrates a recurring theme in medicine and history. What was originally seen as a breakthrough and accepted by all in a mass of hysteria and pandemonium led to later questioning and disbelief. It is important to carry this lesson forward so that we may look at today’s breakthroughs and try to anticipate or foresee such consequences as early as possible.

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Additional Information: Mr Anwar is a third-year medical student.


Figure. Tho-Radia Face Powder

Tho-Radia included an extensive line of skin care products including vanishing cream and face powder. These products claimed to invigorate your skin and infuse it with "vitality." (This image is available at http://upload.wikimedia.org/wikipedia/commons/9/92/Tho-Radia-IMG_1228.JPG and is labeled for reuse. Accessed January 29, 2015.)