GME Around the World

Rouge on the Lips of Silence

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e all carry somewhere within us the names and structures from our textbooks—terms we may never encounter in diagnostic practice, yet that linger in memory like a faint scent of something long vanished.

These words fade with time, disappearing into the depths of history. And still, those dim and half-forgotten terms, once whispered into our minds, leave behind subtle marks. We return to them again and again, often without knowing—carrying them quietly through the years, tucked away in the recesses of our thoughts.

For me, one such structure is the *spironolactone* body.

First described in 1963, spironolactone bodies are cytoplasmic inclusions found in the zona glomerulosa of the adrenal cortex, or in tumor cells of aldosterone-producing adenomas, in patients treated with spironolactone. These inclusions typically appear within weeks of initiating therapy and gradually disappear after long-term treatment or cessation. Histologically, they are eosinophilic and concentric, often with a surrounding halo. On special stains, they are classically Luxol fast blue-positive and PASnegative—though, as with many things in pathology, exceptions occur. Their origin is still uncertain, though smooth endoplasmic reticulum has been proposed.

Once, I showed a photomicrograph of a spironolactone body to a few residents and asked, "Do you know what this is?"

Their responses were unanimous: "What is this?"

I couldn't blame them. I hadn't shown them the image to test their knowledge. Rather, I had hoped to share something more elusive—the way medicine carries echoes of its own past, visible only to those who know where to look. Over the past few decades, I've reviewed nearly every adrenalectomy specimen at our hospital. Even so, I have encountered spironolactone bodies only a handful of times. Moments like this remind me that being a doctor also means remembering things no one asks us to remember. The image I showed them was from a

1991 case—before any of them were born. I myself was still a schoolchild then, far more interested in my Nintendo console than in adrenal histology.

The rarity of these structures today is not mysterious. Spironolactone, once commonly prescribed for primary aldosteronism, is now used less frequently. This shift is partly due to the increased preference for surgical treatment and partly due to the 2002 approval of eplerenone, a selective mineralocorticoid receptor antagonist with fewer side effects such as gynecomastia or menstrual irregularities. Curiously, there appear to be no confirmed reports of spironolactone bodies in patients receiving eplerenone alone.

So what do these inclusions mean? They carry no diagnostic or prognostic weight. Finding one doesn't guide treatment or confirm a diagnosis. At most, it prompts a small realization: *This patient was probably treated with spironolactone*. That is all.

And yet, their gradual disappearance invites reflection. How many other morphologic findings—shaped by past therapies, vanished diseases, or outdated procedures—have already slipped away from our collective awareness?

What else might we fail to recognize—not out of ignorance, but because the world that created such findings no longer exists?

Tuberculosis, once rampant, left its mark in the form of thoracoplasty-altered ribs, pleural scars from artificial pneumothorax, and other histologic curiosities shaped by the therapies of the time—some of them desperate, some misguided, all sincere. I imagine if a pathologist from that era were to show me one of those slides and ask, "Do you know what this is?", I too might answer, "What is this?"

Even now, we occasionally glimpse forms—strange, transitory, born of crisis—that seem to vanish almost as soon as they arrive. Perhaps these findings are nothing more than anatomical relics—mute, faded remnants of forgotten interventions. But perhaps, as bodily responses to a particular era, they deserve to be remembered. Morphology, after all, is never ahistorical. It emerges not only from biology, but also from treatment, from culture, and from time.

The spironolactone body may never yield its full meaning. It may fade quietly, leaving only scattered references in old textbooks and a faint trace in our memory. And so, before it disappears completely, I wished to leave it with a final trace of color—like rouge on the lips of something long silent. Not only as a pathologist, but as a teacher, I have learned that some of the most important things we pass on are not answers, but questions—the kind whose significance becomes clear only long after the asking.

Perhaps this is how we preserve such remnants not by archiving them as curiosities, but by weaving them into the quiet rituals of teaching. A passing mention, a shared memory, a simple slide labeled "What is this?"—each can become a vessel for carrying forward the echoes of what once mattered.



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