

**KATHERINE** So this is a 73-year-old female with a 1-centimeter invasive ductal carcinoma. So we're going to hide our scar.  
**KOPKASH:** We're going to do a hidden scar-- we also call it "aesthetic-scar approach"-- at the edge of the areola, take out the tumor, bring the tissue together, and then check her lymph node through a hidden scar in her axilla. Good.

[BACKGROUND BEEPING]

**FEMALE** [INAUDIBLE]  
**SPEAKER:**

**KATHERINE** And because she's over 70, after surgery, with the new guidelines, we may even safely be able to omit radiation  
**KOPKASH:** therapy. There you go.

She's estrogen-receptor positive for tumor. It's the most likely she'll take endocrine therapy in the future. You come out like this. [INAUDIBLE] like this. I'll take the probe. Thanks.

[WARBLE]

So because we can't seal this lesion, we had to mark it before surgery using a radioactive seed. That was done in breast imaging yesterday. This probe then picks up that radioactive isotope and helps lead us to the exact location of the cancer.

[WARBLE]

So I'm opening up that anterior mammary fascia. It's also called the "oncoplastic plane." It's where the subcutaneous tissue and the breast parenchyma intercept.

So I always think of my resection as a cube. So our anterior dissection is done. Now, we're working on the inferior, then we'll go medial, lateral, posterior, and finally, superior. Thank you.

Really gentle retraction here. Just kind of help me see. Thank you. OK, now you can relax. Here, I'll take the probe.

[WARBLE]

OK, we're going to orient our specimen. I'll take the marking stitch.

**FEMALE** I'm going to give you this back. I'll switch you. Thank you.  
**SPEAKER:**

**FEMALE** The shorter one.  
**SPEAKER:**

**KATHERINE** This will be short right here. This is going to be left-breast seed-localized segmental mastectomy, short superior,  
**KOPKASH:** long lateral, ink anterior. And then we're going to give you margins. So this will get imaged and then sent fresh to pathology.

So we're taking our shaved margins here. OK, I'll take a marking pen. OK, we can see on our specimen imaging. We have the biopsy clip, the tumor, and the radioactive seed. So we'll send that down to pathology.

And this is definitely a lot less surgery than what our previous patient had. So this is a patient who's older, has more comorbidities, but even simple things like putting the incision in a cosmetically pleasing place and closing the tissue around where the tumor is respected will significantly improve the cosmetic outcome. So I really think every patient can be an oncoplastic patient.

OK, can I have those little marking clips?

**FEMALE  
SPEAKER:** [INAUDIBLE]

**FEMALE  
SPEAKER:** So now, we're clipping the cavity so radiation knows where to deliver a boost if that's required, and also, so imaging knows where the cancer was resected from. OK, I'll take a little irrigation-- a little more irrigation. yep. And [INAUDIBLE].

OK, I'll take some local. Hang on one sec. So we're injecting some local pain medication to help with post-operative pain control. In general, our patients don't even require narcotics after these type of surgeries, and most go back to work within less than a week.

And ice is really amazing-- so like 30 minutes on, 30 minutes off-- they all do within 24 hours after surgery. And it's hard to have an ice pack on your breast if you're at work. So we put them in a wrap here in the operating room. And then 48 hours later, they switch to a compression sports bra and take a shower and things.

OK, I'll switch, and they can relax. You get that off skin, please?

**FEMALE  
SPEAKER:** [INAUDIBLE]

**FEMALE  
SPEAKER:** Yeah.

**FEMALE  
SPEAKER:** [INAUDIBLE]

**KATHERINE  
KOPKASH:** So we made an incision and axially fold-- we're dissecting her subcutaneous tissue, [INAUDIBLE] claviclepectoral fascia. Once we come to claviclepectoral fascia, we're in the axilla. And that's where the sentinel lymph node will be located.

OK, we'll have two sends. You can relax, Jen.

[WARBLE]

Thank you. Count's 14. Left-axillary sentinel lymph node number one fresh. Nothing left in here. The background is zero. We'll take a little local. Here's the probe down. OK.

**FEMALE** [INAUDIBLE]

**SPEAKER:**

**KATHERINE** Zero. Yeah, there's nothing. And then we'll need probably two 30s two 40 monochros.

**KOPKASH:**

So back 20, 30 years ago, any time somebody had breast cancer, what they did what's called "axillary dissection." They removed all the lymph nodes under the arm-- invasive breast cancer. Nowadays, we know-- I'll give you this back-- starting back in the '90s, they realized if you move the first lymph node that drains the breast, it reliably drains to a first node. And how we find that is this radioactive isotope. It's called "technetium-99."

The patient's injected within 24 hours of surgery. And it's going to drain from the breast the same way a cancer would.

**FEMALE** [INAUDIBLE]

**SPEAKER:**

**KATHERINE** Usually periareolar.

**KOPKASH:**

**FEMALE** OK.

**SPEAKER:**

**KATHERINE** And it's done in the nuclear medicine. And then that probe that picks up the radioactive seed also can be switched to pick up the technetium.

**KOPKASH:**

**FEMALE** [INAUDIBLE]

**SPEAKER:**

**FEMALE** What is the process of [INAUDIBLE]?

**SPEAKER:**

**KATHERINE** Just imaging guidance. So it's either stereo guidance, or ultrasound guidance, or sometimes, even MRI guidance.

**KOPKASH:** OK, we'll take a 30. And they numb up the skin, make a tiny skin nick, and then place the seed.

**FEMALE** [INAUDIBLE]

**SPEAKER:**

**KATHERINE** Thanks. And then scissors to Jenny. I don't think Alex can see.

**KOPKASH:**

**FEMALE** Thank you, ma'am.

**SPEAKER:**

**KATHERINE** So we're closing this lymph-node incision. You can see it hides nicely in this fold in the armpit.

**KOPKASH:**

We did a left seed-localized segmental mastectomy sentinel lymph-node biopsy. There is 1, 7, 8 specimens. Clean case. No foreign body. No need for further antibiotics. She can go wherever anesthesia would like. And she can be ice pack and an ultram, or Tylenol, Advil.

So we're all done. Surgery took about 51 minutes. We got the cancer out, checked the lymph node. And with just some basic oncoplastic approaches, hopefully, she'll be really happy with her cosmetic appearance afterwards.