Treatment and Management of Periocular Lesions
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Not every lesion needs to be removed. It can be monitored. [But] how do we do it surgically? If they’re fluid filled, a lot of times, you can rupture and drain them. You can inject them with a steroid. You can use curettage, that means scraping. Incise, is an incision into [and] excise means you cut it out. You can cryo, heat cautery, use acid (bichloroacidic acid is stronger than trichloroacidic acid), electrolysis, and laser.

When you do monitor it, I think photography is certainly better than a drawing (with measurements), but it doesn't have to be done. But if you do the drawings, you got to put down how big they are. Frankly, some of those might be better than what the pictures are because you look at them and you go "how big is the picture?" If you're going to take a picture of something, put a millimeter ruler right next to the lesion. That way, you know how to compare it next time. Just a little helpful hint there.

Chalazion (figure 1A)
I had an instructor that says "if warm compresses don't work, use more warm compresses." Most patients will not do enough warm compresses. If they do it twice a day for couple of minutes, they feel like that's good, and it's got to have a lot more than that. What you are trying to do is cause circulation to come in and white blood cells be able to take it out. You open up the capillaries [...] you have to have a fair amount of time. One little trick that I've heard is that some patients have boiled an egg and they put it inside a wet washcloth and it retains the heat for a long time. They just hold it up there, right curvature. Anyway, that's one way.

Steroid injection: If you have a long standing chalazion (6-9 months or longer), the likelihood of it going away with just an injection of a steroid is not very much. It gets encapsulated. It's no longer an inflammatory process and the steroid helps out when there is inflammation. So don't expect it to do a lot. The other drawback for doing an injection of steroid is it can change the pigment color. For darker pigmented people, that can make a big difference. So that's just a caution there.

Incise: you don’t cut these out. You incise into them and then you have to scrape around in them. I will show you here. It's a pretty thick viscous clump in there (figure 1B). Now the way this one was done. This is on the anterior surface of the eyelid. This has taken just a lid clamp, kind of a ring on the front side; on the back side is a plate. You will see that in the video here later in the lecture. You clamp that down; that helps pull that right into a certain [part] and pop it up. Then you go ahead and make the incision there. With some pressure from a cotton swab, you push around there and make it go against [...] and this thick viscous-y thing comes out. After it's out, take the curette and you curetage inside there,
scraping everything and keep pulling out (figure 1C). The curette is kind of like a mini ice cream scoop. That's kind of the way it's shaped. You just go in there and scoop, start pulling back there. When you get all the stuff done, most times you may just do a small cautery and that's what it looks like when it gets done (figure 1D). Put a little antibiotic on it.

![Figure 1C](image1C.png)  ![Figure 1D](image1D.png)

**Papillomas (figure 2A)**

You're not going to incise these because there's no fluid in them. It's like a wart so they're solid. You can excise it just by cutting it off. You can cryo it. What are some of the problems with cryo? Cryo is done couple of different ways. If you go to the doctor's now, they usually have a little spray can. It has to be a special can. I remember that I went and got some liquid nitrogen. I got it, surprisingly enough, from a welding supply store because they have stuff like that. When you go to get it, they won't give to just anybody. I said "I just want some in a thermos here." They really started questioning me. The problem is, even in a thermos, if you put the liquid nitrogen in there and you put the stopper down and screw it down, you now have a bomb. And it will explode that way. You can set it on there and you can keep it in the freezer, but it just evaporates. If you have an enclosed airtight container, it can cause a bomb that way. That's the reason they don't do it. If you take that, you can actually take a q-tip and touch against there, and keep doing it and keep from freezing it. Kind of hate to spray around the eye. You don't want to get it in the eye itself. That's the different options there for the cryo.

You can actually laser these [papillomas] and you can cause them to shrink. Electrosurgery, if you go to the base of it right there, you can actually cut that right off, while you're doing electrosurgery, and it cauterizes it at the same time.

If you are going to cut it off, you just grab it with a pair of forceps and pull it out (figure 2A). You should be injecting this with anesthetic with a little Epi in there so it shrinks the blood vessels and it doesn't bleed so much. You just cut it off and then you may need to cauterize it down because it will bleed a little bit.
This is a poor picture. Sorry that it projects so poorly. This is a larger papilloma (figure 2B). You have this lesion and he grabs it with the forceps. You got your scissors there and just cut right along it. You try to remove it entirely. You would think it would really bleed, but when you give the combination anesthetic, it really doesn't bleed all that much.

Xanthelasma (figure 3)
How are we going to remove that? We know that we are going to check them for why did they have it. Because people that have it are at high risk for having high cholesterol and they also have a higher chance of having diabetes. The trichloroacidic acid works really well on these. I will show you a video on how to apply that in a minute here. You can [also] surgically remove them. They can come back. Same reason they showed up to begin with. You're not curing that problem. You're only curing the evidence that it was there. So they can come back.

Sebaceous Cyst (figure 4)
You can rupture these pretty easily. A lot of times when you do [rupture them], they will grow back. In fact, a lot of the surgeons, when they try to remove these, they try to remove them without rupturing them. It can be quite a trick to do that. But if you do it without rupturing it, you know it won't come back.

Herpes Zoster Virus

Anybody seen lesions around the eye for herpes zoster? How do we treat it?

You need pain control. Herpes zoster can be one of the most painful diseases. I've heard people say that it's worse than childbirth. I've never done either so I will take their word for it. Often times you will need a narcotic. Most of us kind of shy away from narcotics, thinking "maybe we can get by with this." There's good reason. We don't want anybody addicted to any drugs. But I found that most patients, if you give enough drug to make it bearable, not to eliminate, it tends to be not habit forming if it's for short periods of time. We need to be able to prescribe it. We need to be able to help the patient. So remember, it often needs a narcotic.

We do want a topical antibiotic because those lesions can become infected. It's an open lesion and it's hard to keep the hands away from it. You want to reach up there and frankly, hands are dirty. So an antibiotic should be there.

We need to resolve the disease. [...] Acyclovir, Famvir, Valvir [are the main three]. Famvir and Valvir tend to have less postherpetic neuralgia. Even though they are more money, you have to take it less often than what the Acyclovir is. But Acyclovir will work.
For postherpetic pain (neuralgia), you can put Cortizone cream on there, Capsacin helps. Neurontin is a pill that can help. Make sure you can give that to the patient. Tri-cyclic antidepressants, don't forget that. I think that's a key point to keep in the back of your mind again. If you give them this (tri-cyclic antidepressants), there's less chance of having the pain. There's been known suicide from having the pain. It just doesn't seem to go away for them. You can reassure the patients that eventually the pain will go away, but it can be very painful for months.

**Teleangiectatic Blood Vessels**
You can do electrolysis. You can also do laser.

**Cyst of Zeis** (figure 5)
They’re just oily secretions from blocked sudorific gland. Those can be ruptured. They rupture quite nicely and kind of a plug comes out of there. They rarely come back. They are fairly easy one to do.

**Keratoacanthomas** (figure 6)
Have kind of that keratin look right there. They usually are in kind of a stalk that comes out and becomes a bulb like this. They can resolve spontaneously, but when they do, a lot of times, it can leave a scar because it erupts. [...] They can be frozen off again; most common is to be able to excise them.

**Seborrheic Keratoses** (figure 7)
The typical little skin patch like that. Those are kind of nice to get rid of. They’re not a big deal. Cryo works extremely well. You can actually just scrape them up, but it still is kind of painful. You want to use anesthetic if you do that.

**Solar Keratosis** (figure 8)
60% of people over 40 have at least one solar keratosis. Have you seen those? What part of the body is exposed more? The face. We got to be able to see those. Prevention is key: sunwear, UV protection. [Solar keratosis] cryo's very nicely. Trichloroacids will work well. Scraping (curettage) can be done.

**Cancerous Lesions**
What about cancerous lesions? Again this is something that you need to make sure in your practice, if there's anything that's suspicious, you send it in as a biopsy. [Basal cell/squamous cell carcinoma and malignant melanoma] are the ones that are most common, as you already know.
If we see something like this, we are pretty sure that's basal cell (figure 9). Very telltale signs on it: raised lesion, little crater, pearly appearance. I think all of us will agree that's probably basal cell until proven otherwise. That should be excised. By the way, when you say a biopsy: what is it? When you remove the whole thing, you just send it in. That's still a biopsy. It's just a total biopsy.

I don't think any of us will miss something like this (figure 10). This is kind of a sad case. The guy was homeless and just let it kept developing.

What about [this one] (figure 11)? How many of you think that one is cancerous? Little bit of suspicion, but I don't see a lot. You got [the] eyelashes coming out. They're not really affected. [...] There is an engorged vessel right there. But that's one that should be biopsied. It may or may not be [cancerous].

[Video plays]
We are going to give the anesthetic (figure 12A). This is for an old chalzaion. When you inject that can be painful. This is a great patient. You inject a lot. As you put it in one place and you move it to another; he flipped the lid and now he's going from the backside as well (figure 12B). You try to make that balloon up and get it in there. Sometimes you will have some extra coming out through the side. That's okay. Here's the clamp. There's the back shield I was talking about. Our surgeons prefer to do it from the backside. Some will do it from the front. Here we are clamping it down (figure 12C). He will flip the lid. This particular one, instead of making the straight incision, he's going to use a trephine and he will just put a little punch in there. Now trephines come in all different sizes. This is just a fairly small one. He will make the punch (figure 12D). The shield keeps it from going all the way in. [...] Now he's taking the curette and he's pulling away from there. Now he's just snipping as he goes through there (figure 12E). [...] He's not done. He's going to go back
with the curette again and remove all the gunk. Notice that it's not bleeding much. [...] A little antibiotic and let [the patient] leave.

Patient Management
Like everything else you do, you are going to give them options and you also want to make sure they are informed of any type of complication. Any time you break tissue, you could have an infection; you could have a scar. You need to make sure that the patient is aware of that. You should have an informed consent with a witness. That could be your assistant that's in there; that's not a problem. You should always know what the expected healing process is and what the desired outcome is.

Before you start treating, you need to make sure what the history is. How long has the lesion been there? Is it painful? Is there something causing it? You got to have the systemic history as well. Is this person a keloid former? Are they allergic to any medications [or anesthetics]? Lidocaine is really tolerated well by about everyone. The epinephrine can sometimes be [non-tolerable].

Chemical Cautery
This is one that almost everyone can do. You have to clean that lesion [with alcohol] so that the acid can get down to it. [Then] take a thin layer of petroleum jelly and put it around the lesion, not on the lesion so that the acid doesn't go to the side. Then you take the acid and if you take the end of the wood applicator, you just put it on there. How do you get a wood applicator? The other end of a cotton swab. Then just tell the patient [what to] expect. [...] Usually with these chemicals, they don't hurt too much.

It will turn a milky white as you work at it. I will show you a video of that in just a minute. Of course, it can darken up as it becomes a scab. You should tell that you should expect a scab. The lesion should fall off within about a week. The color will be a little bit lighter until the pigment (melanin) [migrates] to that area.
**Trichloroacidic Acid**

*Video plays*

You see these little tiny bumps [that are] not even worth going after really, unless you're vain. I will tell you why in a minute here. Have your stuff all laid out. There's lidocaine, ointment, trichloroacidic acid, bandages, eye pad, and cotton swabs. Everything is ready.

Here's that vain person. [....] So Jeff is kind enough to help with this and we videotaped it just so you can see it happen.

Notice, [he] washed his hands. Always a good thing, right? Now he's got some alcohol [to] clean it off in there. Here comes the lidocaine directly onto the lesion. Now he's going to scrape it away. Here comes the ointment that we are going to put around the [...] lesion so that it is protective there. It does a really nice job there; just for extra protection, just goop up where it might run down to. Here comes the acid. It takes a fair amount to go on there. You can see it's kind of turning white there. When you get done, clean up the eye [for the patient]. No big scar.

**Thermal Cautery**

After you anesthetize with 2% lidocaine with epinephrine, you poke the area [to test for sensitivity]. You probably don't realize this, but every time you go to the dentist, and he's working on your teeth, before he starts drilling, he will poke around on your gum. [...] If you are going to cauterize it, on your cautery tip, as you squeeze that, it will glow red. That sanitized it right there (you want to heat the tip before use to sanitize). Allow [the tip] to cool and then go ahead and put it where you want it. As you heat it, do everything you want, and remove it before you turn it off. Because if you turn it off while it's touching the skin, [the tip] will stick to tissue.

**Anesthesia Injection**

Here we are, anesthetizing the eye (figure 13A). You can see how it's bellowing up.

We are just going to cauterize the punctum. You see how it blanches white (figure 13B). That's what we want.

The take home message here: if you don't know what the lesion is, do not treat it yourself! [Also] make sure you send for a biopsy anything that is questionable.

Any questions?