

INCISIONS IN VETERINARY MEDICINE:

HOW TO MAKE THEM, TREAT THEM, AND TROUBLESHOOT THEM



An incision is a right-angle thing. Remember back in pre-vet days when we griped about why the heck we had to take physics and math and all that stuff? Well, here is at least one reason why. A right angle is 90 degrees. You know, perpendicular like. Applying that concept to the skin (or gut or bladder for that matter too), it concerns the position of the scalpel blade relative to the skin surface. When the surface undulates, you undulate along with it! When applied at this right angle (*pun intended*), the scalpel blade will cut through the skin thickness creating a surface on one side that is matched to the other surface. Those two “same” surfaces will heal together best. It’s a little thing, but **success in surgery is all of the little things collectively going your way.**

Don’t use scissors to cut skin. Crush. **‘Nuff said.**

Don’t electively cut into a pyoderma. Prepare your owners with a handout (or speech during the surgery scheduling phone call); **give them the preop task** of looking at the skin, parting the hairs, calling out the pustules and the papules, the lichenified yeast-fields, the scaly rings. Link the task to a cost savings on antibiotics and postop morbidity rechecks/recuts.

Think twice about clipping the surgical site fur with clippers that have been to *Hades* and back (butts, ears, hotspots, abscesses, roadrash, matts, etc.) **Think twice** about setting the scrub container next to the bum. **Think twice** about bare-handing the rectal thermometer probe immediately prior to bare-handing the surgical scrub...and double dipping. (I am sitting here on an airplane, and the steward is wearing latex gloves to handle empty pretzel wrappers. Our profession, on the other hand, has its bare fingers all up in nobody’s business routinely! (*Shudder*))

Close a skin incision exactly, **appositionally**; or err on the side of subtle eversion. Best scar cosmesis.

If you are making an incision, you are going inside. When you are there, be nice. Don’t touch everything. Don’t pinch, crush, stretch everything. Don’t wipe and rub everything. Don’t air dry it all. Blot, push, nudge when needed. **Get in, get done, get out.**



Don't leave much evidence that you were there. Suture size to meet the need. (Have you ever tried to break suture? Try it. Analyze if you think a gut wall could break that suture.) Suture knot tags to meet the need. (1mm yes; 1cm no.) Drains for sterile procedures? Think hard on that one. Foreign body reaction, ascending infection; why bother with sterile procedure? Can you treat deadspace for five days in a less invasive manner? Bandage maybe; body suit.

Cover the incision, (eg. Tegaderm, Hypafix, Nexgard) 12-24 hours for a seal. Longer if we are lucky. **Dog tongues, the kitchen floor, owner's fingers, the backyard pavers** all have their own little microbiome. Tegaderm, Hypofix, Nexgard Let's let the skin incision deal with its own local flora; it has enough trouble with that sometimes.

Now, let's talk about "suture reactions". My favorite. I am sorry to call y'all on this, but humility is needed here. 99% of what is being called a suture reaction is a superficial incisional infection, the cumulative causes of which are touched on above (it is, again, many little things). In today's day of superbugs, we need to step up, call it like it is and improve ourselves, our protocols and those we influence. Superficial incisional infections should be rare. They should be easy to treat. They should be one of those minor (helpful) professional failures that nudge us to do better. **It is NOT always the dog's fault** (or the owner's...)

The good, the bad and the ugly. If an incision does anything but sit there looking boring – dry, slightly pink, slightly raised and thinly scabbed—**we need to be tuned in**. Everyone can take a picture these days within moments of a request. When you call them for updates, any non-boring incisions deserve a photo shoot. Prime the owners at discharge to be proactive. If a dog is aggressively going at an incision, someone is missing the memo. Frankly, if an incision comes in dehisced/open, someone missed some glaring clues. Incisions do not go from boring to gapping without "the bad and the ugly" as preamble.

For me, the sign that has the least chance of being missed or misinterpreted by an owner (or a tech screening via phone) is moisture. Healthy, good little incisions are dry, period. A crusted "drip" at the bottom of a vertical incision is **not a dry incision**. A scab that is goeey is **not a dry incision**. An incision that has "blood" on it (read, "serous discharge") is **not a dry incision**.



Sample the site. If it were “just a lump”, you’d stick a needle in it while blindfolded and standing on your head. A red, puffed, damp incision is no more at danger from a 22g needle than a lipoma is. Prep the skin, blot dry, stick a needle into what looks/feels abnormal and aspirate cells, fluid, bugs, debris. Blow that sample into/onto a culturette and send it off. (Wiping the surface will just give you a mixed bag of stuff ganging up on the surface; **go for the bugs who are duking it out with the PMNs** for cripes sake.)

Treat a superficial incisional infection topically while waiting for your culture result. This gives the lesion enough time to respond to just the topical therapy (or not), gets the patient back in for evaluation when culture is back, and the freedom to prescribe (or not) antibiotics for a brief period of time. Owners can buy chlorhexidine scrub from you or the drug store (eg. Hibiclens, Phisohex) and take care of business in the comfort of their own home, **under your guidance**.

Other non-medicinal means of treatment include topical heat, compression, antiseptic soaking, hydrotherapy, bandaging, “**picking scabs**” (Yessss! Ok, ok, we can call it “encouraging drainage”, if you’d like.)

Incisions are a big part of our work. **Pride in our work, progress in our career**—these are the big picture. These are what keep us going in every day. (I still get a charge out of seeing a seven-day postop incision that is beautiful!) Actual costs for happy(er) incisions is quite low. Intangible but essential benefits to our professional life are quite high. I’ll take that cost:benefit analysis to the bank.

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