

ANAL SAC GLAND TUMOR:

Large or small, lots to think about along with surgical removal.



Synopsis

When the patient is lucky enough that you found the mass on **routine annual exam** (46% cases are incidental) and “caught it early” (*mean survival time, tumor only = 1745d*), this surgery can be a breeze with *few consequences!* Even so, the large tumors can also be removed with *fairly good functional outcome*. Morbidity with this tumor is related to **four issues**—1) perineal mass (pain, tenesmus, hygiene, drainage); 2) hypercalcemia (renal failure); 3) lumbar node metastasis (tenesmus, colonic/urethral obstruction); and 4) distant metastasis (signs related to organ affected).

Confirmed apocrine gland anal sac adenocarcinoma (AGASAC) has a reasonably long survival with treatment; surgery appears to offer the primary therapeutic benefit, with chemotherapy performing adjunct though significant role. In one study, non-metastatic and lumbar node metastatic AGASAC had an overall treated median survival of 479-544 days. When tumors **were less than 10cm²**, median survival was 584 days; larger tumors median survival was 292 days.

Paraneoplastic **hypercalcemia** is a common finding—*seen in 25% of patients* (symptomatic or asymptomatic). Rarely is calcium severely elevated, but some cases may benefit from preoperative therapy to lower serum calcium. Calcium levels offer some assistance with prognostication—the median survival of hypercalcemic patients being 256 days and normocalcemic patients 584 days.

At the time of diagnosis, 50% of dogs have metastasis to the sublumbar lymph nodes and a further 5% have metastasis to the lungs and other sites. Even with these lymph node statistics, **removal of diseased lymph nodes offers increased survival** when performed at time of primary tumor removal, or subsequently (potentially multiple times.) (*Mean survival time tumor + LN disease = surgery only 540d; surgery and chemoTx = 1700d*)

(Combined data summary)	Surgery	Surgery and Chemotherapy	Surgery, Radiation and Chemotherapy
Median survival time	500 days	540 days	742-956 days
1-year survival rate	65%	69%	80%
2-year survival rate	29%	38%	56%

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And lastly, reports suggest that up to *9% of cases are bilaterally* affected, either at the initial diagnosis or subsequent to unilateral treatment. Palpable changes in both sites do not have to be detected for disease to be present. (*Preliminary data from multicenter study including 595 patients.*)

Surgical removal of an AGASAC is well tolerated overall by the patient, and owner acceptance of cosmetic and functional outcomes is good. Surgical removal of diseased lumbar lymph nodes is a straightforward procedure with mild-moderate degree of risk; the patient experience is *similar to an abdominal exploratory procedure*.

Complications that may arise with this/these procedure(s) are:

- *Surgical wound dehiscence* (minor or major depending on degree; may or may not require revision)
- *Interoperative abdominal bleeding* (moderate to major; very rarely needing colloid or blood products)

Postoperative outcomes may be poor due to the above complications, and/or:

- *Fecal incontinence*—uncommon unless >50% of the anal “ring” is surgically removed; usually manifests as dropping remnant fecal ball after defecation; extremely uncommon for prolifc incontinence unless diarrhea present.
- *Local recurrence*—may occur in up to 18% of cases postoperatively (independent of surgical margins)
- *LN recurrence*—common first metastatic site (31% postop); can be removed multiple times when clinically significant
- *Distant metastasis*—uncommon but significant (13% postop)

What a surgeon needs **prior to surgery**:

- **Aspirate cytology**—very useful in differentiating abscess vs. neoplasia
- **Size estimates** (2 dimensions; XXcm by XXcm)—useful for prognostication and surgical preparations
- **Abdominal ultrasound**—ideal (tho not essential) for prognostication and recommendations regarding LN removal
- **Well evacuated colon/rectum**—advised pet owners to withhold food after AM meal and walk extensively to encourage natural defecation; manual evacuation under anesthesia during preoperative preparations may be helpful.
- A decision about **one or both sides** (abnormal and/or normal sac/gland)

General considerations and complications for all surgery/anesthesia procedures are:

- *Difficult and/or painful anesthetic recovery (variable; may require additional medications or re-hospitalization)*
- *Incisional infections (rare, minor; usually require oral antibiotics)*
- *Incisional dehiscence (rare, minor or major; may require surgical revision)*
- *Adverse anesthetic event (rare, major; may result in serious impairment or death)*

Proper owner expectations are important to a successful experience and patient outcomes. Please discuss this information with your clients while assisting them with decision-making for **treatment of Anal Sac/gland Tumors**.

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