

vista iq.

A NEW ERA IN MAST CELL  
TUMOR DETECTION

**Early Diagnosis. Better Prognosis.**



A guide to fast, easy, and affordable  
Mast Cell Tumor detection. Save lives  
with early intervention.

# CANINE CANCER BY THE NUMBERS



1 in 4 dogs  
develop cancer

Statistic	Percentage
1 in 4 dogs develop cancer	25%
47% of dogs over 10 die from cancer	47%
1 in 3 deaths are from skin cancer	33%
21% are MCTs	21%



47% of dogs over  
10 die from cancer



1 in 3 deaths are  
from skin cancer



21%  
are MCTs

# DIAGNOSING, STAGING, AND TREATING MCTS

## The three-step approach



**DIAGNOSIS**  
(via Vista iQ, plus FNA or biopsy)



**STAGING**  
(assessing disease spread)



**TREATMENT PLANNING**  
(based on diagnosis  
and staging)

Each tumor type behaves differently. Some metastasize through lymphatics, others via the bloodstream, and some may remain locally invasive. Thus, staging strategies must align with tumor biology.

# THE “WAIT & SEE” PROBLEM

*A Clinician's Brief survey of nearly 250 veterinarians revealed:*

**Nearly 2/3rds of dermal or subQ masses go undiagnosed**



**39%**

*(2 in 5)  
of lumps aspirated*

**19%**

*(1 in 5)  
of FNAs evaluated  
by pathologist*

**25%**

*decrease in testing  
for busier teams*



THE DECISION TO “WAIT AND SEE” CAN INTRODUCE UNNECESSARY RISK, INCLUDING DELAYED TREATMENT, WORSENING OUTCOMES, AND REDUCED PRACTICE REVENUE



**Worsened  
Prognosis**



**Risks Lives**



**Delays Needed  
Services**



**Missed Practice  
Revenue**



“I have seen too many cases where the “wait and see” approach changed everything for the patient’s trajectory. Say a Mast Cell Tumor were caught earlier, we’re talking survival times in thousands of days, where because we waited, we’re now dealing with a non-resectable or metastatic tumor”

**CRAIG CLIFFORD**  
DVM, MS, DACVIM (ONCOLOGY)

# WHY TUMORS GO UNDIAGNOSED



## Most Are Benign

With an estimated prevalence of 15%, veterinary teams correctly assume most masses are benign



## Diagnostic Testing is Expensive

Tight budgets can lead pet parents to delay or decline necessary diagnostics



## Diagnostics Are Invasive

Aspirates and biopsies can be intimidating and discourage immediate testing, especially for small or seemingly harmless masses



***Given the low prevalence of malignancy in dermal and subcutaneous masses, the cost and invasiveness of traditional diagnostic methods highlight the need for a fast, affordable, non-invasive screening tool.***

# THE PET PARENT'S PERSPECTIVE

## HELP PET PARENTS SAY YES TO EARLY DETECTION

### SHARED COMMITMENT TO BETTER OUTCOMES

A methodical diagnostic approach improves patient outcomes and fosters collaboration between veterinarians and pet owners.

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### THE IMPORTANCE OF EARLY DIAGNOSIS

Early identification and classification lead to better outcomes through prompt surgical removal and appropriate staging.

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### EMPOWERING PET OWNERS

Educating clients about Mast Cell Tumors and early detection builds trust and encourages them to consent to diagnostics.



## EFFECTIVE COMMUNICATION

Use analogies to human medicine—Would a person ignore a lump without knowing what it is?—to explain the need for individual mass evaluation.



# INTRODUCING vista iq.

The New First Step Early Cancer Detection

- Non-invasive
- Low Cost
- Tech Led
- Results in 2 minutes



## OUR DISCOVERY

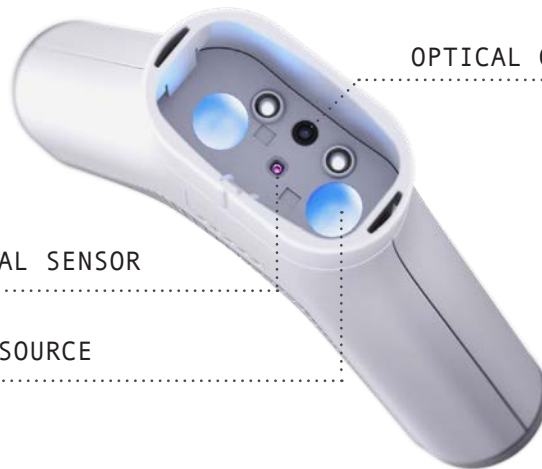
Malignant Tumors behave differently than Benign Tumors when heated and cooled.

## OUR SOLUTION

Heat Diffusion Imaging: Using AI to detect unique thermal patterns in tissue

## THE 40-SECOND SCAN

- 10 seconds - Tissue heated 42°F
- 30 seconds - Tissue cools down
- <2 mins – Cancer risk report



OPTICAL CAMERA

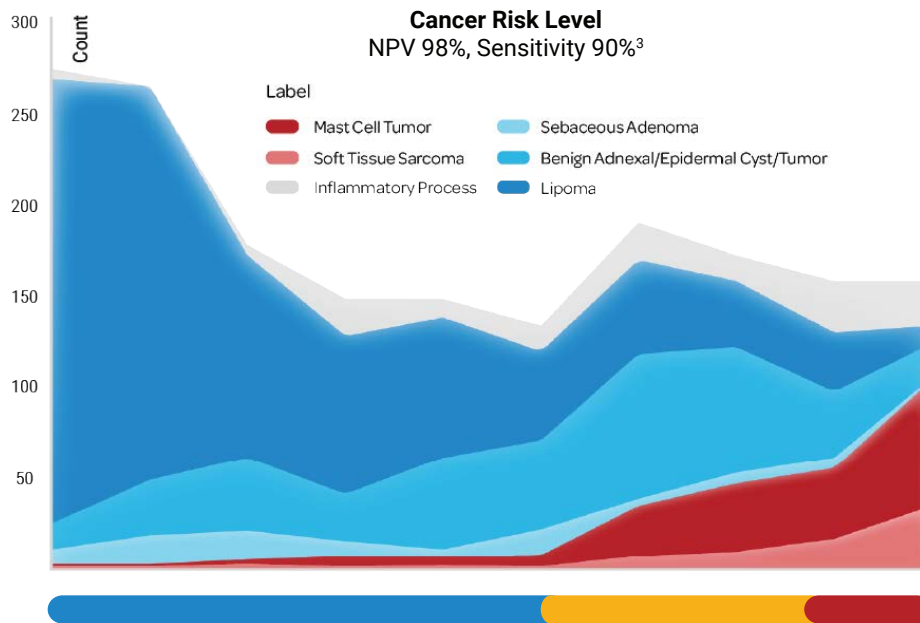
THERMAL SENSOR

HEAT SOURCE

# CANCER RISK LEVELS AND DIAGNOSTIC ALERTS

After a 40 second scan, every VISTA IQ report includes either a **Low, Moderate or High Cancer Risk Level**...

And some reports include a **diagnostic alert**, which provides even more confidence & decision support



**Diagnostic Alerts**  
Specificity 90%

//Lipoma

//Benign Epithelial

//Sebaceous Adenoma

//Mast Cell Tumor

//Soft Tissue Sarcoma

**LOW RISK**  
1 in 50 chance of malignancy

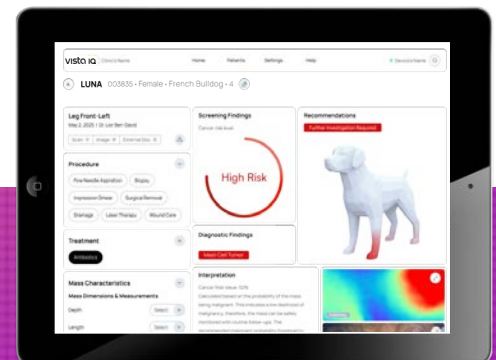
Monitoring with routine follow up is recommended

**MODERATE RISK**  
1 in 4 chance of malignancy

Further investigation is recommended due to elevated risk

**HIGH RISK**  
2 in 3 chance of malignancy

Further investigation and intervention is required



After a 40-second scan, you receive a report with the recommended next step. A High Risk result with an MCT Diagnostic Alert like this one guides the client toward the best possible outcome.

# AFTER THE DIAGNOSIS — STAGING OPTIONS

## MINIMAL VS. COMPLETE STAGING

**Minimal staging** includes FNA of the regional lymph node and a basic health profile (CBC, chemistry, urinalysis).

**Complete staging** incorporates abdominal ultrasound with liver/spleen aspirates, thoracic imaging, and potentially bone marrow evaluation.

The decision depends on...



Tumor  
location



Clinical  
signs



Known  
prognostic  
indicators



Owner  
goals and  
finances





## KEY PROGNOSTIC INDICATORS

**Several factors influence prognosis:**



### HISTOLOGIC GRADE

Tumors used to be graded 1, 2, or 3 (Patnaik system), but most were graded 2, creating ambiguity. The Kiupel system now uses a 2-tier grading: low or high grade, which correlates better with outcomes. Low-grade tumors tend to have prolonged survival (>2 years), while high-grade tumors may yield a median survival of only four months—or even less.

### MITOTIC INDEX

High mitotic activity indicates more aggressive tumors and worse prognosis.

### BREED AND TUMOR LOCATION

Shar-Peis, for example, often present with aggressive tumors. Tumors in the inguinal, muzzle, or mucocutaneous areas have higher metastatic potential.

## UPDATED TREATMENT GUIDANCE



### TAILORED MANAGEMENT

MCT treatment depends on grade, stage, location, and patient factors, and may include surgery, chemotherapy, radiation, and supportive care.



### SURGICAL MARGINS

Research shows that 2 cm margins with one fascial plane deep are often sufficient for low- to mid-grade tumors, reducing unnecessarily wide excisions.



### EVOLVING STANDARDS

A 2004 study found low recurrence rates for grade I and II tumors, even with narrow margins, changing surgical planning.

## CHEMOTHERAPY, SUPPORTIVE CARE, AND WHEN TO STOP



### CHEMOTHERAPY

Used for high-grade tumors, poor prognostic factors, or metastasis. Common drugs: prednisone, vinblastine, CCNU, and tyrosine kinase inhibitors.



### SUPPORTIVE CARE

All dogs with gross disease should receive prednisone, diphenhydramine, and a gastroprotectant to mitigate effects like vomiting and ulcers.



### WHEN TO STOP TREATMENT

Eventually, the focus shifts to comfort. Honest communication with pet owners is essential, combining medical guidance and emotional support.

# CASE STUDY

## JEMMA

10YO | GERMAN SHEPPARD | MCT PREVIOUSLY REMOVED FROM FOOT.

### DISEASE PROGRESSION

Months later, she developed a swollen leg and enlarged lymph node. Cytology confirmed metastasis.

### IMPORTANCE OF THOROUGH STAGING

Liver appeared abnormal on US, aspirates showed no mast cell infiltration - confirming stage II disease. **VISTA iQ scan at distal part of suture line. MCT detected.**

### CLINICAL TAKEAWAY

Always aspirate normal-appearing organs; imaging alone can be misleading. Vista iQ Heat Diffusion technology identified the presence of a MCT

With surgery and chemotherapy, dogs with stage II MCTs can live several years—median survival over 40 months.

# CASE STUDY

## SIGI

5YO | Pitbull mix

### IMPORTANCE OF THOROUGH STAGING

No issues in her history presented with five small masses her owners noticed in the past month.  
Vista iQ scan of multiple mast cell tumors, all low grade.

#### PHYSICAL EXAM

Three cutaneous masses are all 0.8-1 cm and are all easily movable.

#### PROGNOSIS

Excellent

#### TREATMENT

Surgery alone

### CLINICAL TAKEAWAY

Just because a dog has multiple mast cell tumors does not mean that they have a poor prognosis. Multiple cutaneous MCTs, detected by HT Visa, are associated with a low rate of metastasis and a good prognosis for long-term survival.

# VISTA IQ - YOUR PARTNER IN EARLY DETECTION

## INSTANT, NON-INVASIVE ANSWERS

VISTA iQ delivers rapid cancer risk assessments—  
40 seconds, no needles or sedation.

## RULE OUT OR RULE IN

Confidently clears benign lumps while flagging suspicious  
masses for follow-up, streamlining decision-making.

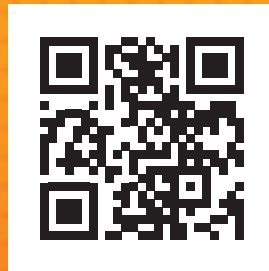
## IMPROVED CARE AND CONFIDENCE

Builds trust with pet owners and supports  
higher-quality care.



SCHEDULE A VIRTUAL  
DEMONSTRATION FOR YOUR TEAM  
WITH ONE OF OUR EXPERTS

**ht-vet.com**



**vista iq.**

1 Source: Dank Gillian , Buber Tali , Rice Anna , Kraicer Noa , Hanael Erez , Shasha Tamir Aviram Gal , Yehudayoff Amir , Kent Michael S.; Training and validation of a novel non-invasive imaging system for ruling out malignancy in canine subcutaneous and cutaneous masses using machine learning in 664 masses; Frontiers in Veterinary Science (10, 2023) URL=<https://www.frontiersin.org/journals/veterinary-science/articles/10.3389/fvets.2023.1164438>; DOI=10.3389/fvets.2023.1164438; ISSN=2297-1769