Challenging diagnosis
Gastrointestinal (GI) disorders are caused by multiple factors. After common baseline tests rule out other sources, we are often left with IBD or intestinal lymphoma as the most-likely cause of the illness.

Ultrasonography
Intestinal wall thickening, common to both IBD and intestinal tumors, is confirmed using ultrasound. Although an important tool on the path to diagnosis, ultrasonography is not solely effective in distinguishing lymphoma from IBD.

Definitive diagnosis
An accurate diagnosis of lymphoma or IBD is often obtained through histopathological evaluation of intestinal biopsies. Full-thickness biopsy obtained surgically offers a more thorough evaluation of all tissue compartments compared to endoscopic biopsy and is the preferred means of diagnosing intestinal lymphoma.

Non-invasive alternative
Financial constraints and/or concerns over the invasive nature of biopsy force many cat owners to seek alternatives. For those willing pet-owners, the decision to pursue biopsy is made easier when greater evidence points to cancer as being the more likely cause of the illness. That is where a blood test that helps discriminate between IBD and intestinal lymphoma plays a major role in the diagnostic pathway.
**VDI-TK FELINE**

* A simple blood test for cancer

**Biomarker Principles**

VDI-TK measures thymidine kinase (TK) type 1 activity, which is involved in the synthesis of DNA precursors and is only expressed in S-G2 cells. In studies, serum TK levels correlate to the proliferative activity of tumor disease.

**A POSITIVE TK result** indicates neoplasia. A positive TK result is often present in lymphoma and leukemia, and is commonly expressed from other types of tumors. The source of disease should be thoroughly investigated. A negative result does not rule out tumor proliferation. Low levels may be found in tumors of small mass or low proliferation. Elevated TK has rarely been detected in normal healthy cats.

Lymphoma often responds to corticosteroids such as prednisone and prednisolone. However these and other chemotherapy agents may reduce TK activity, as it may suppress tumor proliferation. It is best to obtain the initial TK assessment prior to such treatment. But if impractical, consider this impact when interpreting results.

**Clinical Study**

61 cats of various breeds, ages and both genders, were enrolled in a study including 30 with disease (LSA n=18, IBD n=12) and 31 healthy control cats.

**Findings:** Cats with LSA had significantly higher TK levels than cats with IBD and healthy controls. The study achieved a sensitivity of 78% and a specificity of 91%. Given the high specificity, TK is particularly effective for the rule-in of lymphoma.

- **Sensitivity 0.78**
- **Specificity 0.91**
- **High Positive Specificity >0.98**

**How to use VDI-TK FELINE**

- Perform abdominal ultrasound to confirm small bowel wall thickening
- Perform TK assessment to differentiate intestinal neoplasia from inflammation