When and how to assess response after treatment with STELFONTA® (tigilanol tiglate injection)

OVERVIEW

Assessment for complete response following STELFONTA® treatment should not be undertaken before 28 days due to STELFONTA's mode of action which includes mast cell tumor (MCT) destruction, an inflammatory response, and stimulation of second intention wound healing; therefore treatment success cannot be definitively determined until at least 28 days after injection. [1-6]

When determining treatment response, consider:

- ✓ a wound (following sloughing of the tumor) is a primary determinant of efficacy;[3] but does not occur in all cases that achieve a complete response
- ✓ normal mast cells are often present as part of the typical wound healing process,[7] so a fine needle aspirate (FNA) undertaken during these early stages of wound healing may give a misleading picture of the treatment response;
- ✓ granulation tissue covering the wound site in the first 2 to 3 weeks after treatment should not be confused with tumor re-growth.

RECOMMENDATION – WAIT UNTIL AT LEAST 28 DAYS BEFORE ASSESSING TREATMENT RESPONSE.

When assessing treatment response at 28+ days:

1. If there is neither macroscopic evidence of residual tumor nor a wound, a complete response has been achieved. It is not necessary to confirm a complete response via an FNA, as cytology can be difficult to interpret due to the presence of mast cells as part of the complete healing process.[7]
2. If a wound is evident and there is no nodule or tumor mass, reassess once the wound resolves as it is difficult to determine whether there has been a complete response while a wound remains.
3. If a nodule or tumor mass is evident, perform an FNA. If there is no evidence of MCT on the FNA, continue to monitor the site at regular health checks. If there is evidence of MCT on the FNA, consider the reasons for incomplete response and assess for retreatment. While 75% of dogs achieved a complete response after a single injection, for those that required retreatment after 28 days, the response rate increased to 87%.[1,2,4]
4. Once a complete response has been determined, monitor the treatment site periodically for recurrence just as one would monitor the site post-surgical resection. 89% of dogs had no tumor recurrence at the site of STELFONTA treatment at 12 months.[8]

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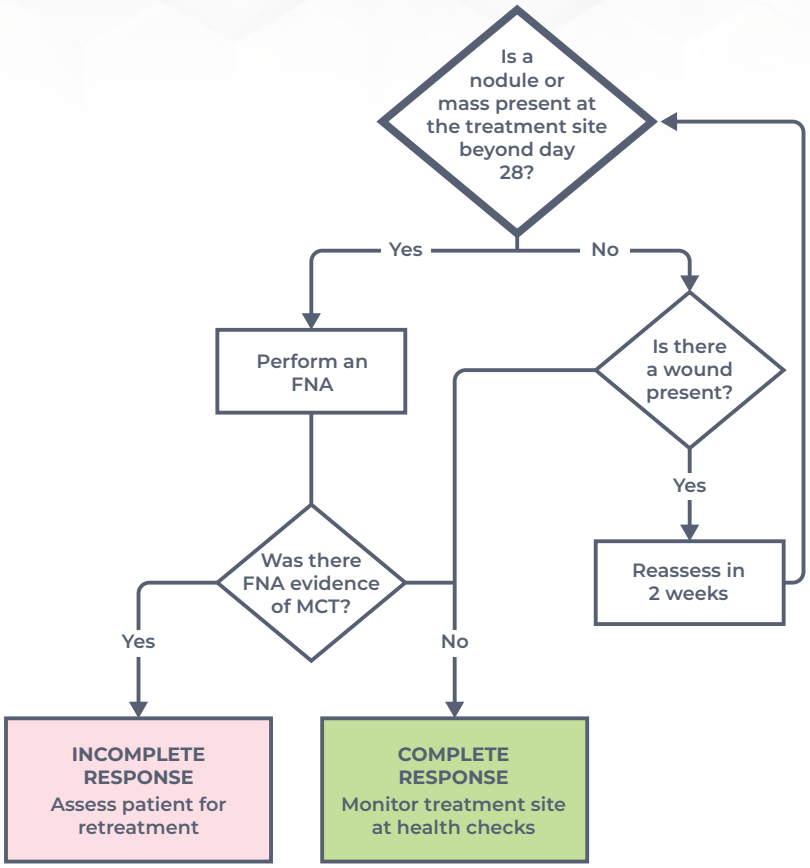
FIGURE 1: DAY 28 ASSESSMENT FLOW-CHART



IMPORTANT SAFETY INFORMATION:

Accidental self-injection of STELFONTA® (tigilanol tiglate injection) may cause severe wound formation. To decrease the risk of accidental self-injection, sedation of the dog may be necessary. In dogs, do not inject STELFONTA into subcutaneous mast cell tumors located above the elbow or hock. Formation of wounds, possibly extensive, is an intended and likely response to treatment with STELFONTA along with associated swelling, bruising and pain; these wounds are expected to heal. Appropriate pre- and post-treatment medications must be given, including a corticosteroid plus blocking agents for both H1 and H2 receptors, to decrease the potential for severe systemic adverse reactions, including death, from mast cell degranulation. For full prescribing information, contact VIRBAC at 1-800-338-3659 or visit https://vet-us.virbac.com/stelfonta.

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5. Boyle GM, D'Souza MMA, Pierce CJ, Adams RA, Cantor AS, Johns JP, et al. Intra-lesional injection of the novel PKC activator EBC-46 rapidly ablates tumors in mouse models. PLoS ONE. 2014 Oct 1;9(10).
6. Moses RL, Boyle GM, Howard-Jones RA, Errington RJ, Johns JP, Gordon V, et al. Novel epoxy-tiglianes stimulate skin keratinocyte wound healing responses and re-epithelialization via protein kinase C activation. Biochemical Pharmacology. 2020 Aug 1;178.
7. Noli C, Miolo A. The mast cell in wound healing. Veterinary Dermatology 2002, 12, 300-313.
8. Jones P et al. (2020) J Vet Internal Medicine. https://doi.org/10.1111/jvim.16018