ImmunoDog

CLINICAL STUDY 17-ONCO-07

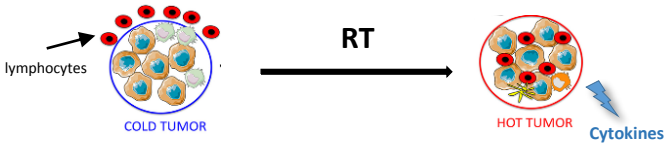
06/04/2018

Evaluation of immune system response to hypo fractionated radiotherapy in canine non-operable oral, cutaneous or digital melanoma

- Standard protocol of radiotherapy (RT) dedicated to the treatment of non-operable melanoma : 4 sessions, once a week, 8 Gy/session
- Purpose of the study: to evaluate the immune system response to RT protocol, in order to assess the ability of this treatment to potentiate the tumor response to immunotherapy
- Investigational site: **ANIMAL HOSPITAL POSTOJNA**

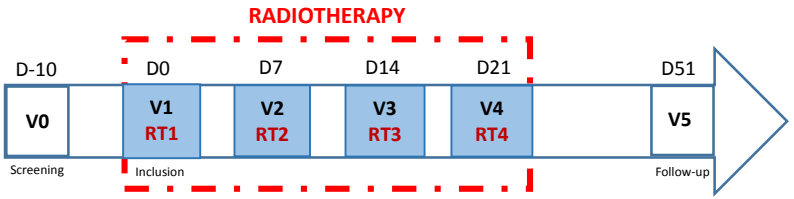
Context of research project

- RT-direct cytotoxic effect targeting cancer cells
- Modification of the tumor microenvironment
  - ↑ infiltrating lymphocytes
  - ↑ PD-L1 expression
- Activation of immune response



➔ **RT can improve the rate of responders to immunotherapy**

Overview of visits



Contact **Ana Nemec**, DVM, PhD, Dipl. AVDC, EVDC
e-mail: info@ahp.si
phone: +386 (0) 5 721 2255
ANIMAL HOSPITAL POSTOJNA
Cesta v Staro vas 20 - 6230 POSTOJNA SLOVENIA

Inclusion criteria

- ✓ Dogs > 4 kg
- ✓ Estimated life expectancy > 3 months
- ✓ Non-operable oral, skin or digital melanoma of stage II, III or IV: diagnosed by clinical examination, histology analysis and CT-scan or radiographies
  at the moment of inclusion or
  < 1 month before inclusion
- ✓ Tumor diameter > 2 cm
- ✓ Dogs presenting multiple tumors of different histopathological types are eligible if no associated treatment is planned for other than melanoma tumor

Non-inclusion criteria

- ✓ Females who are gestating or in lactation
- ✓ Dogs in poor condition
- ✓ Autoimmune disease
- ✓ Acute infection of bacterial, viral or fungal origin
- ✓ Severe acute or chronic pathology, weakening the immune system and/or aggravating the prognosis
- ✓ Immunosuppressive treatments and/or high-dose corticosteroids (immunosuppressive dose) within 4 weeks prior to inclusion. Washout period : 4 weeks
- ✓ NSAIDs at the time of inclusion. Washout period : 7 days
- ✓ Anti-viral treatment or vaccination at the time of inclusion. Washout period : 4 weeks
- ✓ Chemotherapy/immunotherapy within 4 weeks prior to inclusion. Washout period : 4 weeks

Authorized concomitant treatments

- ✓ NSAIDs (meloxicam) and morphine
- ✓ Symptomatic treatments for cancer, anti-emetic or antidiarrheal in particular
- ✓ Antibiotic treatment
- ✓ Flea & Tick spot-on, standard deworming

Forbidden treatments during the study

Chemotherapy and **immunotherapy**
Corticosteroids regardless of dose
Immunosuppressive agents such as cyclosporine, azathioprine, cyclophosphamide, oclacitinib, tacrolimus and interferons;
Antiviral and **antifungal** treatment
Vaccination

Benefits for the owners

- ✓ Costs supported by OCR: clinical exams, blood collections, tumor biopsies from V1 to V5.
- ✓ At the end of follow-up, 500 € will be reimbursed to compensate the expenses of first radiotherapy and exams performed during V0.

Visits	V0	V1	V2	V3	V4	V5
Days	-10	0	7±1	14±1	21±1	51±3
Informed consent	x					
Inclusion and non-inclusion criteria	x	x				
Clinical exams	x	x	x	x	x	x
Blood samples						
. Hemato- and biochemical analyses	x				x	
. Cytokines		x	x	x	x	x
. Peripheral blood mononuclear cell isolation		x		x		x
Tumor biopsies	x	x		x		x
Fine needle aspiration of lymph nodes	x					
CT-Scan or radiography	x					
Radiotherapy		x	x	x	x	