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CHEMOTHERAPY USING VINCRISTINE IN CANINE NASAL NEOPLASM - A CASE REPORT

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Introduction

Nasal tumors are neoplasms occurring in the nasal cavity and are common causes of chronic nasal diseases among dogs. Though rare, they may occur in middle aged to older ones (Leib and Monroc, 1997). They generally arise from the ethmoid turbinate region and spread rostrally. They are locally invasive but rarely metastases until quite late in disease process.

Chemotherapy employing antineoplastic agents either singly or in various combinations remains the best method to control disseminated cancers (Brander et. al, 1991). They kill cancer cells or check the cell multiplication and thereby hamper the tumor growth. in the presented case, the effect of Vincristine on nasal neoplasms was studied.

Materials and Method

A male Pomeranian dog aged 8 years was presented at District Veterinary Centre, Kozhikode with the history of dyspnoea, snoring, oozing of blood from left nostril and blood tinged tears. Inappetance and exercise intolerance were also reported. Previously it was treated with antibiotics and anti histaminics (parenteral therapy and nasal instillation).

Clinical examination showed a rectal temperature of 102.2^0 F, respiratory rate of 38/min and pulse rate of 106/min. Epistaxis and blood tinged epiphora were aiso observed. The dog kept its head in an extended position and mouth breathing was observed. Auscultation revealed inspiratory dyspnoea without any abnormality in cardiac sounds. Obstruction was noted in the left nostril when a probe was passed.

Exfoliative cytology of aspirated nasal discharge stained with wrights stain revealed clumped together cells with enlarged, hyper chromatic nuclei and pleomorphic cells. The observation was indicative of neoplasm in the nasal cavity.

Cytocristin[1] injection @ 0.025 mg/kg was diluted with 10ml of normal saline and administered as slow I/V. Utmost care was taken during intravenous injection to avoid perivascular entry. Review of the case was made on the 3rd day and to attend side effects, if any and the therapy was repeated on the 8^{th} day.

Results

The dog showed marked clinical improvement by the 3rd day and there were no side effects. Reduction in epistaxis was observed. On the 8^{th} day there was tremendous reduction in epistaxis, epiphora and inspiratory dyspnoea. Repeated the same dose of the drug on the 8th day. By the 16th day the dog was clinically normal. It showed small degrees of anorexia and alopecia during the period of therapy which was responsive to digestive enzymes and skin conditioners. The treatment was stopped after the 2^{nd} dose of injection.

Discussion

The dog showed symptoms like epistaxis, chronic rhinitis, difficulty in respiration and mouth breathing (Leib and Monroc, 1997; Lascelleus, 2000 and Papazoglou, 2001). Exfoliative cytology using aspirated nasal discharge by Wright's staining (Benjamin, 1979) revealed pleomorphic, hyperchromatic clumped cells having enlarged nucleus indicative of neoplasm in the nasal cavity. Vincristine monotherapy at a dose rate of 0.025 mg/kg

[1] *Cytocristin (1 mg/ml): Vincristine (Cipla)*

intravenously was found to be effective (Chickkanakoppu et al., 1993). Epistaxis, dyspneoa and blood tinged epiphora ceased completely and the neoplasm regressed with in two weeks of therapy. Animal showed small degree of alopecia and anorexia during the course of therapy as side effects.

Conclusion

Although nasal neoplasms are not very common in dogs, surgical excision and radio-therapy are difficult (Lascellus, 2000). In such cases chemotherapy with antine-oplastic drugs are effective. It reduces the risk involved in surgical removal and anaesthesia. It causes cure or compiete regression, alleviation of symptoms, control of pain for animal and physiological comfort for the owner. (Brander et al., 1993). Hence vincristine is the drug with less side effects that can be used for many malignancies that are difficult to cure through surgical excision.

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