

SUCCESSFUL THERAPEUTIC MANAGEMENT OF GERIATRIC VESTIBULAR SYNDROME IN DOGS

G.R. Bhojne, A.A. Sanghai, N.P. Dakshinkar and Kalyani Thakur

Department of Veterinary Clinical Medicine, Ethics & Jurisprudence, Nagpur Veterinary College, Nagpur 440006; Maharashtra Animal & Fishery Science University, Nagpur 440 001.

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A total 7 dogs of different age, breed and sex presented at Teaching Veterinary Clinical Complex, Nagpur Veterinary College, Nagpur for chief complaint of balance abnormality and head tilt were considered for this study. Based on clinical history i.e. age and acute onset of symptoms, clinico-haematological examination, negative coprological examination all these cases were diagnosed as Vestibular syndrome. All these cases were treated with labyrinthine stabilizer (Cinnarazine), nervine tonic and hematinics. Complete recovery was noted in all the cases.

All animals (including humans) have a vestibular system which controls balance and prevents them falling over (Garosil, 2007). The vestibular receptors of the inner ear and specific areas of brain work together and forms vestibular system. Any affection to this systems leads to loss of body balance. This syndrome is common in dogs and cats and clinically characterized by loss of balance, a head tilt, abnormal flickering of the eyes from side to side (nystagmus) and general wobbliness (Ettinger and Feldman, 2010). Some dogs are very badly affected and will roll over and over without being able to get up. Other dogs are only mildly affected and may be able to get around without too much difficulty but have their head tilted to one side. Others sign includes decreased appetite, positional strabismus on affected side and occasional vomiting. There are many disease which leads to vestibular syndrome in canine but most common are ear infection, a tumor in the brain or the inner ear, a vascular problem, toxicity to chronic drug administration (e.g., metronidazole), and old dog vestibular disease.

As large number of dogs are presented to Teaching Veterinary Clinical Complex with complaint of head tilting and walking problems. Present study is carried out to investigate the therapeutic efficacy of cinnarazine in canine vestibular syndrome.

Clinical history

A total 7dogs of different age, breed and sex presented at Teaching Veterinary Clinical Complex, Nagpur Veterinary College, Nagpur for chief complaint of balance abnormality and head tilt were considered for this study. According to history dogs were having symptoms as inappetance, tilting of head, difficulty in walking, circular movement, flickering of eyes, occasional vomiting. Five of these dogs were referral patients of local veterinarians under treatment without clinical recovery. Periodical recurrences were reported in two cases. All these dogs were subjected to thorough clinical examination as temperature, heart rate, respiration rate. The dog was further subjected for Otoscopic, Fundoscopic, hematological and Blood smear examination.

Dog no	Age	Sex	Breed	Clinical symptoms
1	11 years	Male	Spitz	Inappetance, head tilt, circling movement
2	9 years	Male	Labrador	Inappetance, head tilt, circling movement
3	14 years	Female	Cross breed	Inappetance, head tilt, circling movement
4	10 years	Male	Spitz	Head tilt
5	12 years	Male	Spitz cross	Inappetance, head tilt, circling movement
6	9 years	Female	Spitz	Head tilt

7	12 years	Male	Spitz	Head tilt
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Diagnosis

Clinical examination revealed that all dogs having normal temperature, respiration rate and heart rate. All the values were within physiological limit. Out of 7 dogs 4 dogs having pallor of mucous membrane and slight dehydration (6%). Otoscope examination of both the ears revealed that dog was not suffering from otitis media but in three dogs slight haemorrhages were recorded. Faecal examinations were negative for ova and cyst of endoparasites. Fundoscopic examination revealed no abnormality in the fundus. Haematological investigation like haemoglobin and total erythrocyte count revealed that the values were within normal physiologic limit in three dogs and anemia in four dogs (Average Hb level ranging 6.4 gm/dl and TEC 3.18×10^6). Blood smear examination was negative for any hemoprotzoan parasite. Based on clinical

history i.e. age and acute onset of symptoms, clinico-haematological examination, negative coprological examination all these cases were diagnosed as Vestibular syndrome.

Therapeutic Management

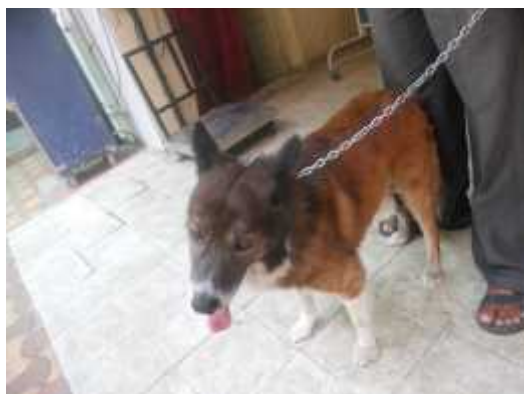
All dogs were treated with Inj. RL for a period five days to rehydrate and regain appetite. All dogs were treated with Tab. Vertigon 25 mg (Cinnarazine) @ ½ tab/ dog bid. Inj B1, B2, B6 preparation was also given @1ml intramuscularly as nervine stimulant. Anemic dogs were treated with oral hematinic syrup containing Iron and folic acid 5ml bid. All dogs showed marked improvement during treatment after a week with regain in appetite, balancing body and walking normally. Complete recovery with normal head position and walking was observed after three to four weeks of treatment.



Before Treatment



After Treatment



Before Treatment



After Treatment

Discussion

In the above cases, the old age and per acute onset of symptoms, circling movement, inability to keep balance, no other neurological abnormalities, occasional vomiting, incoordination, falling and rolling were in accordance with those documented for peripheral vestibular disease which is common in dogs as also reported by Schunk (1990).

The causative factors of peripheral vestibular disease are multifold ranging from infections, neoplasia, polyps or trauma as also mentioned by Chrisman (1991) and Nelson and Couto (1998). But in the present study the clinical symptoms could not be attributed to on single cause. However, all the animals under study were aged therefore the presenting complaint appears to be of geriatric origin.

In the present study all the dogs were aged (geriatric) i.e. between 9 ½ years to 12 years. These finding are in general agreement with Shell (1990) who documented that vestibular disease is common in older dogs of all breeds and any adult cat can be mostly affected.

In the present study cinnarazine was much helpful for recovery dogs affected with geriatric peripheral vestibular disease. Cinnarazine is L type Ca²⁺ channel blocker, Potential antagonist of n ACh-R in action and also acts as a pressure-sensitive potassium channel blocker for Management of vertigo of peripheral origin as also narrated by Soto and Vega (2010). Cinnarazine acts as a labyrinthine sedative and also improves the micro-circulation in

the labyrinth. Use of antihistaminic, labyrinthine stabilizer (cinnarazine) and dopamine antagonist to alleviate emesis and vestibular disease as also reported by Varshney *et al.*, (2008).

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