

of cholelithiasis despite of high prevalence of biliary sludge, though no specific predisposing factors were not identified. Various studies have assessed the specific role of dietary components like fatty acids, cholesterol, fiber, carbohydrates, alcohol, and some vitamins and minerals were considered as a potential risk factor for gallstone formation (Cuevas *et al.*, 2004).

Gallbladder mucocoele (GBM) is an abnormal, intraluminal accumulation of inspissated bile and/or mucous within the gallbladder, could be predisposed by hyperadrenocorticism and hypothyroidism (Smalle *et al.*, *loc. cit.*), though there were no concurrent metabolic abnormalities recorded in this study.

### Summary

Gall bladder is a storage organ for bile which helps in digestion, prone to get pathological changes like any other organ due to either mechanical, inflammatory or infectious causes. Cholecystitis, cholecystolith and gall bladder sludge were identified as most common complications of gall bladder, which can be managed either medically or by surgical corrections. Ultrasound is a ideal, non-invasive, imaging diagnostic tool to make concrete assessment of structural changes in any visceral organ.

### References

- Aguirre, A.L., S.A.Center, J.F. Randolph, A.E. Yeager, A.M. Keegan, and H.J. Harvey (2007) Gallbladder disease in Shetland sheepdogs: 38 cases (1995–2005). *J Am Vet Med Assoc* **231**(1):79–88.
- Besso, J.G., R.H.Wrigley, J.M.Gliatto and C.R.L. Webster, (2000) Ultrasonographic appearance and clinical findings in 14 dogs with gallbladder mucocele. *Vet Radiol and Ultrasound* **41**(3):261–271.
- Center, S.A., (2009) Diseases of the gall bladder and biliary tree. *Vet Clin Small Anim* **39**:543–598.
- Cuevas, A., J.F.Miquel, M.S.Reyes, S.Zanlungo and F.Nervi, (2004) Diet as a risk factor for cholesterol gallstone disease. *J Am Coll Nutr* **23**(3):187-196.
- Jungst, C., G.A.Kullak-Ublick, and D.Jungst, (2006) Microlithiasis and sludge. *Best Pract Res Clin Ga* **20**:1053–1062.
- Kirpensteijn, J., R.B. Fingland, and T.Ulrich (1993) Cholelithiasis in dogs: 29 cases (1980-1990). *J Am Vet Med Assoc* **202**:1137–1142.
- Quinn, R. and A.K. Cook, (2009) An update on gallbladder mucoceles in dogs. *Vet Medicine* **103**(4), 169–175.
- Secchi, P., A.G.Poppi, and A. Ilha. (2012) Prevalence, risk factors, and biochemical markers in dogs with ultrasound-diagnosed biliary sludge. *Res Vet Sci* **93**:1185–1189.
- Smalle, T.M., A.K.Cahalane, and L.S.Koster, (2015) Gallbladder mucocoele: A review. *J South Afric Vet Assoc* **86**(1):1318-1323.

Indian Vet. J., September 2019, 96 (09) : 74 - 76

## Osteodystrophia Fibrosa in a Kathiyawari Colt - A Case Report

R. Eazhisai<sup>1</sup>, B. Gowri, A. Abinaya and S. Hamsa Yamini

Department of Veterinary Medicine, Madras Veterinary College, TANUVAS, Chennai – 600 007, Tamil Nadu.

(Received : November, 2018 **389/18** Accepted : June, 2019)

### Abstract

A kathiyawari colt aged three years was presented with the anamnesis of inappetance, swelling of nasal bridge bone and shifting lameness. The urinary fractional clearance of phosphorus was highly elevated (40.2%), While the haematological and serum biochemistry revealed no disturbance in Ca and P ratio. Based on these

findings, the case was diagnosed as miller's / big head disease. The horse was treated with tricalcium phosphate, calcium carbonate, limestone and mineral mixture for three months and improvement was noticed during the course of the treatment.

**Key words:** calcium, kathiyawari colt, osteodystrophia fibrosa, phosphorus

Osteodystrophia fibrosa is a rare and

<sup>1</sup>Corresponding author : Email : eazhisai7@gmail.com

**Table I:** Haematological results

Parameters	Values
Hemoglobin	10 g/dl
PCV	22.3 %
RBC	4.66 m/cmm
Platelets	335000 /cmm

metabolic bone disorder affecting young horses. The present article describes nutritional osteodystrophia fibrosa and its successful management in a colt.

**Case History and Observations**

A 3 years old, kathiyawari colt weighing 260 kg was presented to the Madras Veterinary College Teaching Hospital with the history of reluctant to eat, swelling over the nasal bone and ataxia for a period of one week. Feeding history revealed that the animal was fed with grain and wheat bran every day. The animal was housed in a stable with cement floor during the night. The voiding of urine and dung were normal.

Rectal temperature was normal and heart (45 beats/ minute) and respiratory rates (14 – 18/ minute) were within the range. Swelling over maxilla and mandible (Fig - 1) and intermittent shifting lameness were noticed.

The haematological parameters and serum biochemistry were (Table I & Table II) within the reference range except alkaline

**Table II:** Serum Biochemistry and Urinalysis results

Parameters	Serum Biochemistry	Urinalysis
BUN	24.32 mg/dl	-
Creatinine	1.08 mg/dl	16.67 mg/dl
ALP	642.0 IU/dl	-
Calcium	11.60 mg/dl	0.24 mg/dl
Phosphorous	4.52 mg/dl	28.82 mg/dl

phosphatase, 642.0 IU/dl (143-395 IU/dl). The serum phosphorus, calcium and creatinine were within the normal range while excretion of phosphorus in the urine was slightly on higher side (28.82 mg/dl). The Urinary fractional clearance value of phosphorous was 40.2 %, indicating hyperphosphatemia.

Radiographs of the rostro - caudal of the skull revealed reduced dentine productions in teeth (Fig - 2) and radiolucency of the skull bones particularly in the maxilla and mandible. Radio lucent linear striations were observed in the shaft region of the metacarpal bone.

**Treatment and Discussion**

Colt was administered orally with tricalcium phosphate @ 330g/week, calcium carbonate @ 670g/week, molasses @ 1.5 kg/week, limestone @ 300 grams/day and mineral mixture @ 25 g/ day along with the diet, for a period of 2 months. Flunixin meglumine (1.1 mg/kg body weight)



**Fig 1:** swelling over the maxilla and mandibulla



**Fig 2:** Rostro caudal view of head: Reduced dentine productions was observed in the head

was administered intravenously for 5 days. The condition of the colt slightly improved by sixth week of treatment.

Low serum calcium directly stimulated hypersecretion of PTH to maintain calcium homeostasis (Walthall and McKenzie, 1976; David *et al.*, 1997). In the present case, the horse was fed with wheat bran daily. Bran is very high in phosphorus and low in calcium (David *et al.*, 1997). Phytates in bran inhibited the intestinal absorption of calcium during the process of digestion. Feeding a diet mainly consisting of wheat bran led to the development of nutritional secondary hyperparathyroidism in this horse (David *et al.*, *loc. cit.*).

Intermittent shifting lameness was noticed in the present case and was in accordance with Little *et al.* (2000). Generally facial bones such as maxilla and mandibular trabecular bone were affected, become soft and swollen similar findings were noticed.

The animal was successfully treated with calcium supplements and its symptoms showed improvement in clinical signs during the course of the treatment.

### Summary

A case of Osteodystrophia fibrosa in a colt is placed as record.

### References

- David, J.B., Cohen, N.D. and Nachreiner, R. (1997) Equine nutritional secondary hyperparathyroidism. *Comp. cont. Educ. pract. Vet.* **19**: 1380-1386.
- Little, D., Redding, W.R., Spaulding, K.A., Dupree, S.H. and Jones, S.L. (2000) Unusual presentation of nutritional secondary hyperparathyroidism in a Paint colt. *Equine. Vet. Educ.* **12**(6): 297-302.
- Walthall, J.C. and McKenzie, R.A. (1976) Osteodystrophia fibrosa in horses at pasture in Queensland: field and laboratory observations. *Aust. Vet. J.* **52**:11-16.

Indian Vet. J., September 2019, 96 (09) : 76 - 77

## Concurrent Clinical Coccidiosis and Subclinical Babesiosis in an Adult Cattle

S. Saravanan<sup>1</sup>, T. Mohanapriya, K.K. Ponnuswamy, P. A. Enbavelan, R.C. SundaraRajan and R. Ramprabhu

Department of Veterinary Medicine, Veterinary College and Research Institute, TANUVAS, Tirunelveli-627 358, Tamil Nadu.

(Received : April, 2019 **144/19** Accepted : June, 2019)

### Abstract

A three years old Jersey cross bred cow was presented with the signs of lymphadenopathy and catarrhal diarrhoea. Examination of faecal and peripheral blood smears revealed *Eimeria* spp. and *Babesia bigemina*. Haemato-biochemical analysis revealed alterations in the serum biochemical values. The case was successfully treated with sulphadimidine and diminazene aceturate with supportive therapy.

**Key words:** *Eimeria* spp., *Babesia bigemina*, Sulphadimidine, Diminazeneaceturate, Haemato-biochemical analysis

Clinical coccidiosis occurs rarely in adult cattle, which primarily act as asymptomatic

carriers and is caused by *Eimeria bovis* and *E. zuernii* resulting in haemorrhagic diarrhoea and anaemia (Alemayehu *et al.*, 2013). Babesiosis is highly pathogenic resulting in icterus, haemolytic anaemia and haemoglobinuria (Constable *et al.*, 2017). This paper reports clinical coccidiosis in an adult jersey crossbred cow with concurrent subclinical babesiosis.

### Materials and Methods

A three year old Jersey cross bred cow in 5 months of gestation was brought to the Veterinary Clinical Complex, Veterinary College and Research Institute, Tirunelveli with the history of anorexia, diarrhoea for two days. Clinical examination revealed pink conjunctival and vaginal mucous membrane, enlargement of

<sup>1</sup>Corresponding author : Email : sarvet\_25@yahoo.com