Introduction
Actinomycosis is a bacterial disease characterized by a classical rarefying mandibular osteomyelitis. The disease is commonly known as 'lumpy jaw' in bovines and is caused by Gram-positive, branching filamentous organism - *Actinomyces bovis*. It is an obligatory organism on the mucous membranes of oropharynx and predisposition to osteitis seems invariably to occur through direct extension of infection from gums, presumably following injury or as a complication of periodontitis of other causes (Jubb et al., 1993). The basic lesion is represented by granulation tissue having small abscesses, sulphur granules and occasionally draining sinus tracts. Involvement of adjacent bone frequently results in facial distortion, loose teeth, dyspnea due to swelling in nasal cavity. The treatment protocol described by various author have sub satisfactory response (Mettler et al., 2009). The various antimicrobial agents viz. Sulfonamides, Penicillin, Streptomycin and other broad spectrum antibiotics are recommended for its treatment (Radostitis et al., 2000). The present paper reports lumpy jaw in four buffaloes with achievement of complete recovery by treatment with antibiotics and Potassium iodide.

History and Clinical examination
Total four female buffaloes aging 7-11 years were presented with history of proliferative growth in intermandibular region with unusual careful mastication without any opening or discharge (Fig.1). The clinical parameters (temperature, pulse and respiration) were found within the normal range. After cleaning out the site of lesions, fluid material was collected using sterilized syringes and immediately transferred into sterilized tubes for investigation of the causative organism following standard microbiological procedures.

Diagnosis and Treatment
The samples of all animals were positive for *Actinomyces bovis*. The distinct gram positive filaments organism was pragmatic under the microscope (Fig.2). Thus, *Actinomyces bovis* was incorrigible on the basis of both clinical and microbiological examinations. The antibiotic sensitivity test revealed that organisms were sensitive to Streptomycin, Penicillin, Tetracycline and Cloxacillin.

The treatment was initiated with Dicrysticin-S\(a\) @ 2.5 gm i/m (Each vial contains Procaine Penicillin-G 1500000 I.U., Penicillin G Sodium -500000 I.U. and Streptomycin sulphate- 2.5 gm), Inj.Melonex\(b\) (Meloxicam)@ 0.5 mg/kg i/m, Inj. Tribivet\(b\)
Management of actinomycosis

Fig.1-2: A round to circular, painless, hard growth between inter mandibular region

Fig.3: Hard growth between intermandibular region

Fig.4: *Actinomyces bovis*- gram positive filaments

(Thiamine + Pyridoxine + Cyanocobalamin) @ 15 ml i/m daily for 7 days, along with Potassium Iodide @ 10 gm PO daily for 10 days till symptoms of iodism like salivation, lacrimation, inappetence and coughing developed. Besides, local dressing of wounds in mandible region was requisite daily till complete cure.

**Results and Discussion**

Actinomycosis is associated with osteomyelitis typical causing formation of periosteal new bone and fibrosis in the mandible, most commonly on the horizontal ramus. It can occasionally cause granulomatous abscesses in the soft tissues of the head, esophagus, forestomachs, and trachea. Treatment of Actinomycosis along with Potassium iodide @ 6-10 gm/day orally for 7-10 days has been found effective (Radostits *et al.*, 2000). Effective treatment of actinomycosis in cows with oral administration of Potassium iodide and daily dressing of local wound.

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**References**


