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Oral Cystecercosis: A Diagnostic Dilemma

Dental Science

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ABSTRACT

Oral cystercercosis is rare parasitic infectious disease caused by lava of pork tapeworm i.e. taenia solium . But now a days the incidence of this parasitic infection is increasing day by day due to altered eating habits. Oral cavity is nidus of many pathologies. Some may arise due to altered eating habits such as meat, uncooked food etc. the parasitic infections arising from ingesting uncooked pork (larva of pork tapeworm) called as cystecerosis. Although, this infection rarely involve orofacial region and being undiagnosed lead to "diagnostic dilemma".

Introduction:

Cysticercosis is an infection with the larval stage of Taenia solium in the tissue.The clinical representin of cysticercosis depends on the number and location of cysticerci as well as the extent of associated inflammatory reponses or scarring1.Although the exact incidence is still unknown ,oral cysetisercosis is considered a rare event and a precise clinical diagnosis is not usually established .the most frequent sites of cyscticercosis occurrence are subcutaneous layers ,brain,muscles,heart,lungs and peritoneum2.Oral cysteicercocsis is very rare in oral and maxillofacial region although the muscular tissue is usually asymptomatic.

Etiology:

According to the literature reports , the prevalence of oral cysticercosis is 4.1%.The most commonly involved intraoral sites are buccal musosa,ounge and lips3.Taenia solium passes its life cycle in two hosts . The definitive host id human who harbours the adult worm and intermediate host is pig which harbours the larval stage4.Ingestion of inadequately cooked infected pork, the intermediate host ,leads to the development of adult worm in small bowel of humans. The eggs of the worms are excreted with the feces which are ingested by the pig, the intermediate host. Once ingested, the eggs hatch in small intestine and result in cysticercosis ,completing the cycle[5].

Epidemiology

Cystecercosis is a diagnostic dilemma for the clinicians. The ensuing clinical disorder is named after the name given to the organism at the larval stage, cysticercosis cellulosae. Only few cases of oral cysticercosis have been reported in literature. The age ranged from three to seventy years, with a mean age of 23.7years.There has been an equal distributions between genders[6].

Differential diagnosis:

Clinically, soft tissue cystecercosis can be misdiagnosed as lipoma, epidermal cyst, abscess, pyomyositis, tuberculous lympha denitis,neuroma, neurofibroma, sarcoma, myxoma, ganglion,or fat necrosis.USG is the initial and most reliable diagnostic modality for a soft tissue swelling[7].The growing larva in cystic ercosis may provoke a series of inflammatory reactions including infilteration of neutophils,,eosinophils, lymphocytes, plasma cells, followed by fibrosis and necrosis with eventual calcification of the larva. Living cysticerci actively evade immune recognition and do not cause inflammation; however, during the death of larvae, leakage of fluid from the cysts triggers an acute inflammatory response[8].

Investigations:

Diagnosis of intramuscular cysticercosis is difficult solely on a clinical basis as the manifestations are not specific and lesions may be confused with lipoma, fibroma, neurofibroma or intramuscular abscess[9].The diagnosis aids necessary to confirm the diagnosis of cysticercosis include computerized tomography (CT) and magnetic resonance imaging (MRI) to diagnose cereberal cysticercosis ,serology and tissue biopsy. Parasitological examinations are more reliable in revealing Taenia soilum eggs in stool sample.

Immunodiagnosis:

The immunodiagnosis of cystisercosis can be achieved in serum, cerebrospinal fluid and saliva by either enzyme-linked immunosorbent assay (ELISA) or enzyme-linked immunoelectro transfer bolt (EITB. EITB has a specificity and sensitivity superior to ELISA for the diagnosis of cysticercosis[10] .The introduction of cysticidal drugs have changed the prognosis of most patients with neurocysticercosis. These drugs have shown to reduce the burden of infection in the brain and to improve the clinical course of disease in most patients. Further to eradicate the disease implementation of control measure is must. Traditional treatment of cystisercosis has been palliative before the advent of antihelmenthic drugs. Recent clinical trials for the treatment of neurocysticercosis have showed that albendazole and praziquantel can be effective in reducing the number of cerebral lesions.

Conclusion:

Proper diagnosis of cystercercosis is mandatory so that treatment can be done. It is only possible when diagnostician is aware from the clinical features and differential diagnosis of it. Otherwise it can transform into serious illness such as neurocystircercosis. Now- a-days by using antihelminthic drugs it has become easy to treat this before it reaches to some serious complication.

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