

Multiple Mucosal Swellings

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ABSTRACT

Introduction: Cysticercosis is a parasitic infection caused by taenia solium. It can occur as disseminated or localized lesions. Neurocysticercosis is more commonly encountered. Oral and head neck lesions are a rare. When occurs on oral mucosa the lesions appear like any other mucosal lesions which are soft and translucent. These lesions when disseminated prove to be fatal with CNS manifestations.

Case report: We present a case who came to us with a history of tooth pain and accidentally we found multiple lesions over skin and in the oral cavity. He a history of seizures also and this was well correlated with the generalized nodular swellings all over the body. This was diagnosed as disseminated cysticercosis.

Conclusion: This case brings you the peculiarity of multiple oral and head and neck lesions and also the treatment aspect with a year of follow up.

Keywords: Cysticercosis, Mucosal Nodule. Sonography, Hypoechoic Lesion, Target Like, Multiple Lesions

INTRODUCTION

Cysticercosis is an infection caused by larvae of taenia solium. It is derived from Greek word kystis=cyst and kertos=tail named after their appearance.¹ It is caused by poor pig breeding sanitation practice. Larva form of the cyst is commonly seen in brain, meninges and eyes. We present a case of disseminated cysticercosis with multiple oral nodular lesions in a young Indian boy.

CASE REPORT

A 15 year old male patient came to us with a complaint of draining sinus in the lower front part of face since 3 months. He had a trauma in the same region 8 years back after which he experienced pain but did not obtain any kind of treatment and later pain subsided on its own. Patient was a known epileptic and was on medication (carbamazepine 200mg OD, phenobarbitone 60mg OD. Last epileptic episode was 4 months back. Patient by occupation was a labour. He was non vegetarian by diet. He had pale white depigmented area on his facial skin and areas of freckling. He had non tender firm nodular swellings on abdomen, chest. Patient didn't give any significant history related to mode of onset of these lesions. Intra orally nodule one each were present on upper and lower labial mucosa (Fig 1) and three in number on dorsum and dorso lateral surface of tongue (Fig 2). These nodules were smooth, translucent, non fluctuant, firm and non tender. Ultrasonography revealed multiple (more than that evident on clinical examination, more than three) nodules in tongue which were well defined, round, hypoechoic cyst like lesions with hyperechoic central lesion (Fig 3). In the mean time patient was also treated for his complaint of sinus opening.

Histological examination suggested cysticercosis. After complete medical examination a diagnosis of disseminated cysticercosis was established. He was treated with albendazole 200mg once daily for a period of 4 months and was under follow up after that. Patient when reviewed after 6 months was found to free of all the lesions. Even after 4 months patient was reviewed for a year where in he was free of the seizures.

DISCUSSION

Cysticercosis is an infection caused by cysticercosis cellulosae, larvae stage of taenia solium or pork tape worm. The larva has life cycle in 2 hosts, Human beings and pigs. Humans are the definitive hosts and pigs are the intermediate hosts. Adult worm lives in the small intestine of the human beings. One adult worm lives for years and is about 3m long with 1000 proglottids. Each gravid segments has 50000 eggs. Human beings can become the host for this larva in 3 ways, (a) ingestion of food or water contaminated by infected human faeces containing taenia solium eggs, (b) oral transmission of eggs via the hands or carriers of adult worm, (c) internal autoinfection by regurgitation of eggs into stomach after reverse peristalsis (flow chart-1).²

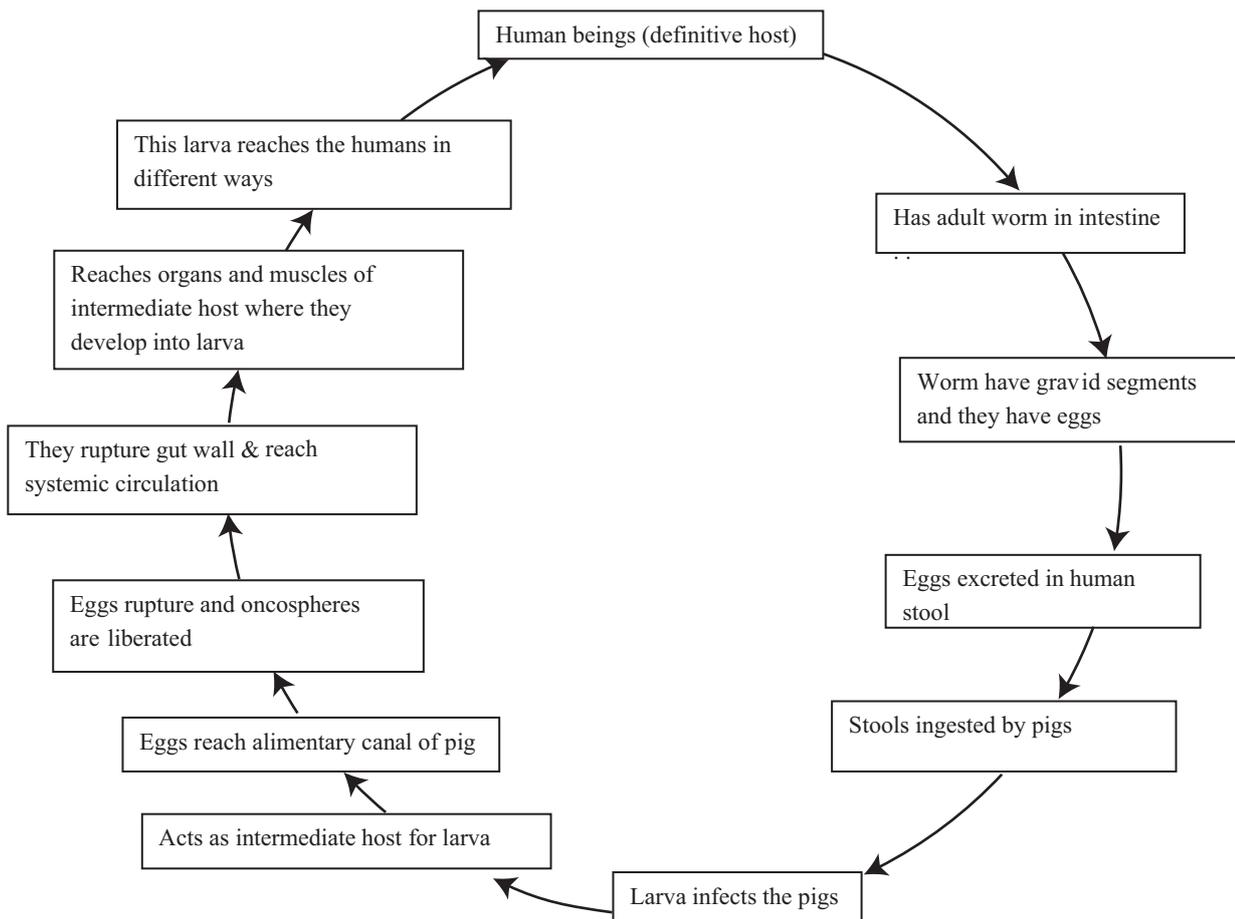
Clinical features

Most frequently affected age group is 3rd and 4th decade with a range from 3-70 years. No gender predilection exists. Infestation by taenia solium presents as epigastric pain, nausea, loose motion. Around 87% of cases present as a solitary lesion.³ It presents as subcutaneous nodules over trunk, upper arm, eye, neck, tongue, face and brain. Neurocysticercosis presents with seizures and may be associated with subcutaneous nodules. Oral cysticercosis may be a component of disseminated case but isolated cysts of oral cavity are rarely reported. In spite of abundance of muscular tissue in oral and maxillofacial region, it is not a frequent site of occurrence for cysticercosis due to high muscular activity and metabolic rate of oral tissues in humans, which act against lodgement and developing a cysticerci.⁴ Frequently involved oral site are tongue, labial / buccal mucosa / floor of mouth. Patient usually complains

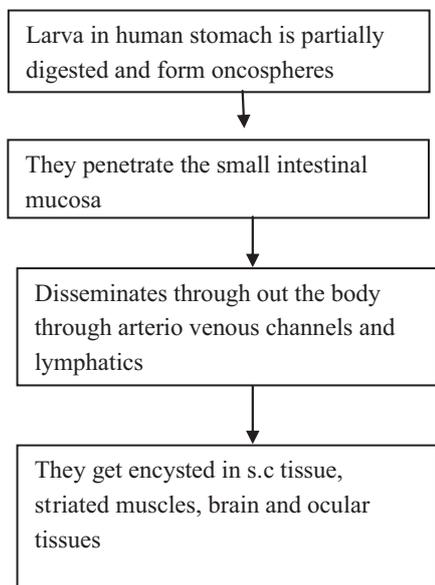
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How to cite this article: Prashant Gupta, Shantala R Naik, Nidhi Yadav. Multiple mucosal swellings. International Journal of Contemporary Medical Research 2017;4(11):2311-2313.



Flow chart-1: Line diagram showing life cycle of cysticercosis larvae in pigs



Flow chart-2: Line diagram showing larva life cycle in human beings a

of swelling. Pain is not a presenting feature. Our patient also didn't have any pain, rather it was not his presenting feature. Secondary infection of the lesion presents with pain. Lesion on labial mucosa interferes with the tongue movements and causes discomfort while speaking and eating.⁵ Histopathological examination gives the final diagnosis and shows following features. Scolex with four suckers and



Figure-1: Nodular swelling on dorsal surface of tongue



Figure-2: Nodular swelling on lower labial mucosa

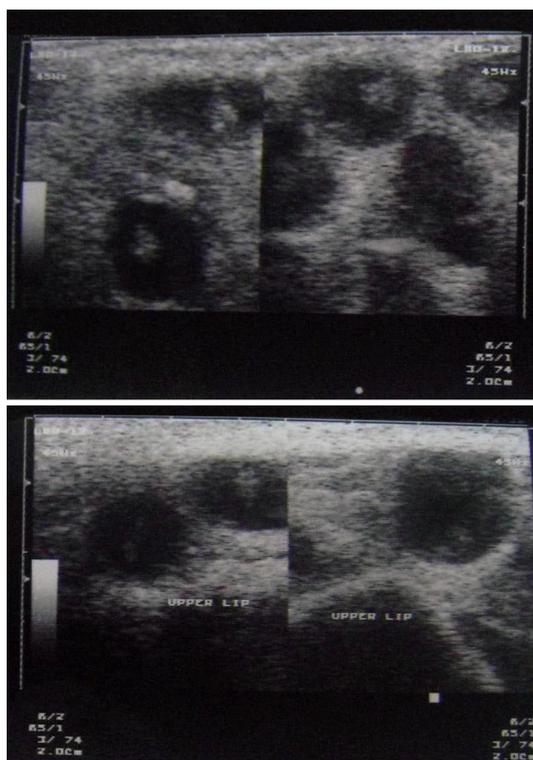


Figure-3: Ultrasonography showing target like lesions

double crown of rostrubular hooklets, duct like invaginated segments lined by a homogeneous membrane comprises the caudal end. The eosinophilic membrane that lines the capsule is double layered consisting of an outer cellular and inner sparsely cellular layer. After a period of 3-5 years the larva dies and the cyst undergoes calcification. Other possible ways of diagnosing the lesion are, ultrasonography, magnetic resonance imaging and serology. These are effective in diagnosis of cysticerci. Fine needle aspiration can identify the tegument layer of larva which helps the clinician in planning the treatment. Immunodetection of cysticercosis can be achieved by cerebrospinal fluid examination. Salivary ELISA and EITB are other aids. People living in endemic areas can have the antibodies because of an exposure instead of an established infection. Every case of cysticercosis should be thoroughly examined for multiple foci. Treatment lies in the early detection and antihelminthics are given to get rid of the larva. Albendazole and praziquantel are potent antihelminthics. Albendazole of 15 mg per kg body weight is given once daily for a month and patient is recalled every month till 6 months. Patient is evaluated for lesions every month after the onset of the treatment.⁶

CONCLUSION

Solitary nodular lesions could be cysticercosis which makes it necessary to be added into differential diagnosis of solitary or multiple oral nodular lesions. Disseminated variants should be diagnosed and treated as possible. It becomes very necessary for a whole body clinical and radiological examination for disseminated variant before any complications could occur.

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Source of Support: Nil; **Conflict of Interest:** None

Submitted: 23-10-2017; **Accepted:** 29-11-2017; **Published:** 08-12-2017