



Spontaneous Lower Extremities Swelling Following Albendazole Therapy in a case in Neurocysticercosis

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Abstract

Human cysticercosis is important cause of seizure and neurological morbidity in developing countries. Cysticercosis result in human, after ingestion of the eggs of Taenia solium usually after a close contact with a tapeworm carrier. The usual sites for the development of cysticerci are the central nervous system (neurocysticercosis – NCC), subcutaneous tissue, skeletal muscle, heart muscle, and the eye. Antiparasitic treatment associated exacerbation of the inflammatory response in brain, eye or subcutaneous tissue is well known. Here we are reporting a case of NCC who developed severe swelling of lower limbs following albendazole therapy. She was treated with high dose of steroid with subsequent resolution of swelling. Therefore one must be vigilant about this rare complication.

Keywords: Neurocysticercosis, Albendazole, Cerebral cyst, Corticosteroid, Anaphylactic reaction).

Introduction

Neurocysticercosis (NCC) is caused by larval form of the pork tapeworm *T. Solium*. Common sites of the cysticerci are brain, CSF, skeletal muscle, subcutaneous tissue or eye.¹ Antiparasitic treatment associated exacerbation of the inflammatory response in brain; eye or subcutaneous tissue is well known. Here we are reporting a case of NCC who developed severe swelling of lower limbs following albendazole therapy

CASE REPORT

A 40-year-old housewife, a known case of multiple NCC and multifocal seizures for 13 years. Her seizures were fairly controlled on antiepileptic

medications. She had received antiparasitic treatment in the past. She presented with breakthrough seizures and headache. Her general and systemic examinations including fundus examination were normal. There was no evidence of subcutaneous nodules. MRI brain revealed multiple cysts in varying stages (Fig1).

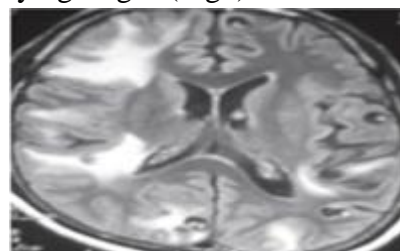


Fig 1: MRI brain revealed multiple cysts in varying stages

In view of active disease, she was prescribed repeat course of Albendazole along with steroids. On third day of Albendazole therapy, she developed swelling and pain of both the thighs and it became more severe in the next one week involving legs also (Fig2).



Fig 2: Swelling of both the thighs after albendazole therapy

Doppler study of both the lower limbs was normal. Plain X-ray films showed multiple "cigar-shaped" calcifications in thigh and calf (Fig3). MRI thigh showed severe muscle swelling in thighs and legs. (Fig4). She was treated with high dose of steroid with subsequent resolution of swelling.



Fig 3: Plain X-ray films showed multiple "cigar-shaped" calcifications in thigh and calf. (arrow head)



Fig 4: MRI thigh showing severe muscle swelling in thighs and legs

Discussion

The diagnosis of disseminated cysticercosis was made by the presence of *C. cellulosae* in the brain and subcutaneous and muscular tissues.¹ The cysticidal drugs and praziquantel and albendazole, reduce the parasite burden.² Severe reactions resulting from the treatment may result from the enlargement of cysts, massive release of antigens, and generalized anaphylactic reaction.^{3,4,5} These reactions are described in terms of increase in cerebral edema surrounding the lesion and subsequent sequale, but in our case, patient developed severe thigh and leg swelling after she was started on oral albendazole therapy, which is a unusual complication. In our case patient had already taken tab albenazole for 4 week. In follow up after 2 month MRI report showed many cerebral cyst,so second course of albendazole was given along with corticosteroid. After 3days of albendazole treatment she developed severe inflammatory reaction in both lower limbs. Severe reactions resulting from the treatment may result from the enlargement of cysts, massive release of antigens, and generalized anaphylactic reaction. Priming with corticosteroids, before starting the cysticidal drug decreases the incidence of such complications

Conclusion

Antiparasitic treatment associated inflammatory changes can occur in any tissue having cysticercus. In our case it was in both lower extremity muscles. Therefore one must be vigilant about this rare complication.

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