Case Report

HUMAN TOXOCARIASIS: A REPORT OF 3 CASES

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ABSTRACT

Toxocariasis is a worldwide helminthic zoonosis due to the infection of human by larvae of *Toxocara canis* or *Toxocara cati*. In this study, three cases of human visceral larva migrans are reported. The first case was a 5 year old male referred to hospital with the symptoms of abdominal pain, loosing appetite, tenderness, cashexia, fever and 9.5gr/dl haemoglobin. Abdominal sonography revealed an echohetrogeny 49×20×54mm in. RUQ and indicated an abscess of fecalis mass. Laparatomy was carried out and 26cm of large intestine including secum, attached small intestine and appendix (5cm) in length and ilocecal lymph node measured 2.5×1.5×0.7cm were removed. Histopathological indicated toxocariasis. The second patient was a two years old girl admitted with symptoms of abdominal pain, tenderness, loosing appetite and loosing weight for two months. The patient was anemic and hypereosinophilic (46%). Physical examination indicated a solid mass in RUQ. Abdominal sonography revealed a solid hypoechoic mass with margin measured 88×44×63mm. The solid mass was removed after laparatomy. Histopathological examination verified the serological test against toxocara toward toxocariasis. The third case was a 46 year old female admitted with the symptoms of abdominal pain in RUQ, right tenderness, leukocytosis and eosinophilia (10%). The clinical diagnosis was appendicitis. Appendectomy was carried out. The appendix was inflamed and around the colon was highly inflamed as well. Serological test on serum sample of the patient against toxocariasis was positive.

KEY WORDS: Toxocariasis, Human, Dog, Cat.

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INTRODUCTION

Toxocariasis (Visceral larva migrans) is prevalent in tropical and developing countries and is generally associated with socioeconomic level[1,2] and caused by larvae of the parasitic round worms, *Toxocara canis* (Dog round worm) or *Toxocara cati* (Cat round worm), two nematode parasites of animals. The life cycle of these parasites is accomplished in dog and cat respectively. Humans acquire infection as accidental hosts. Toxocariasis occurs mainly in young children, who acquire *Toxocara* eggs through contact with soil contaminated by the faeces of dogs and cats that carry the parasite. Children frequently transfer the eggs from their hands to their mouth and may eat the contaminated soil.[3,4] Occasionally, adults who eat clay become infected. After the eggs are swallowed, larvae hatch in the intestine wall and are spread through the blood stream. This is termed visceral larva migrans or toxocariasis. The larvae can enter the liver, the lung, brain or eye.[5-7] Eventually they die and become walled off in microscopic cysts and calcify, but not before causing tissue damage. In the eye,

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toxocariasis may be mistaken for retinoblastoma, cancer of the eye, leading to removal of an eye. Toxocariasis may suspect the persons who have enlarged liver,[8] inflammation of the lungs, fever, cough, wheezing,[9] seizures, rashes, lymph node enlargement,[10] and visual symptoms including decreased vision[11,12] and high level of eosinophils[13,14] In this study three cases of human toxocariasis are reported.

Patient-1: A five year old male was referred to Imam Khomeini Hospital in 2004 with the abdominal pain, loosing appetite, tenderness, cashexy and fever. The patient was pale (Haemoglobin was 9.5gr/dl). Abdominal sonography revealed an echohetrogeny 49×20×54mm was in RUQ and indicated an abscess of fecalis mass. After consultation, the patient was put under general anesthetic and laparatomy was carried out, 26cm of large intestine including secum, attached small intestine (Low) and appendix (5cm) in length and ilocecal lymph node measured 2.5×1.5×0.7cm were collected and sent for histopathologic examination. The report of pathology indicated toxocariasis.

Patient-2: A two year old girl was admitted to Imam Khomeini Hospital with symptoms of abdominal pain, tenderness, loosing appetite, loosing weight for two months. The patient was pale and abdominal physical examination indicated a solid mass in RUQ. Abdominal sonography revealed a solid hypoechoic mass with margin measured 88×44×63mm. The laboratory findings are shown in table one.

The patient was put under general anesthesia and laparatomy was carried out. The solid mass was removed and sent for histopathological examination. No malignancy was indicated and toxocariasis was verified. Serological test against toxocara IgG was positive. The patient was prescribed Prednisolen and diethylcarbamazine. The patient is well and is being followed uptil now.

Patient-3: A 46 year old female was admitted to Imam Khomeini Hospital with abdominal pain in RUQ, right tenderness, leukocytosis and eosinophilia (10%). The clinical diagnosis was appendicitis. Appendectomy was performed the appendix was inflamed and around the colon was highly inflamated as well. Samples were collected from the inflamed sites and histopathological examination indicated inflamed epidiopoli appendicitis with eosinophilic infiltration which is seen mostly in parasitic infection such as toxocariasis. Serological test on serum sample of the patient against toxocariasis was positive.

DISCUSSION

Human toxocariasis is still a poorly diagnosed disease specially in places with conditions which favours its development and it is largely unknown either to health professionals or the general population. Serological testes are of considerable importance in the detection of infection by *T.canis* as from clinical symptoms of toxocariasis are of limited value in the differential diagnosis.[15] The medical professions is only starting to recognize visceral larva migrans as a relatively frequent syndrome in children and adults. Population surveys in many countries amongst healthy people have definitely shown that subclinical toxocariasis is common.[16,17]

In this study three cases of toxocariasis were referred to hospital with abdominal pain and loosing appetite. Two patient were eosinophilic and diagnosis of toxocariasis was made according to the pathology and serological examination and sonography. As the age of patients varied from 2 to 46 years. Eosinophilia could be a suitable indication for following the patients and leading to correct diagnosis.

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Table-I: Laboratory findings of patient 2

Hb	*WBC*	*Neu%*	*Lymph%*	*Eo%*	*M%*	*ESR*	*CRP*	*Toxocara Ab (IgG)*
9.9 g/dl	26300	36	16	46	2	56	2+	Positive

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