**Original Paper**

# Assessment of pure and B hydatid cyst fluid antigens for the diagnosis of hydatidosis

**Maleki F (Ph.D)*[1], Sarafpoor S (M.Sc)[2]**

**[1]Associate Professor, Department of Parasitology, Paramedical Faculty, Iran University of Medical Sciences, Tehran, Iran. [2]M.Sc in Parasitology.**

## Abstract

**Background and Objective:** Hydatidosis is a chronic, zoonotic worldwide infection which induced by larval stage of Echinococcus worm. This study was done to assessment the pure and B hydatid cyst fluid antigens for the serological diagnosis of human hydatidosis.

**Methods:** In this descriptive laboratory study, infected liver with Hydatid cyst were obtained from Tehran's slaughterhouses to prepare cyst fluid in different stages. After draining and purifying the cyst fluid, it was centrifuged and subsequently concentrated. Specificity and sensitivity of sera samples including hydatidosis (n=60), worm parasites (n=55), fascioliasis (n=35), toxocariasissera (n=20) and negative control (n=35) were tested by Counter Immunoelectrophoresis (CIEP), ELISA and Dot ELISA methods.

**Results:** Specificity and sensitivity of pure antigen of hydatid cyst using CIEP method was 68.9% and 86.7%, respectively. Specificity and sensitivity of B-antigen using CIEP method was 87.8% and 83.3%, respectively. Specificity and sensitivity of pure antigen of hydatid cyst using ELISA method was 76.7%, and 93.3%, respectively. Specificity and sensitivity of B-antigen using ELISA method was 96.7% and 88.3%, respectively. Specificity and sensitivity of pure antigen of hydatid cyst using Dot ELISA method was 83.3% and 100%, respectively. Specificity and sensitivity of B-antigen using Dot ELISA method was 100% and 98.3%, respectively.

**Conclusion:** B-antigen using Dot ELISA method is the most suitable serological test for the diagnoses of hydatid test.

**Keywords:** Hydatidosis, Pure antigen, B-antigen, ELISA, Dot ELISA, Counter Immunoelectrophoresis

*** Corresponding Author: Maleki F (Ph.D), E-mail: fmaleki332@gmail.com**

**Received** 28 Nov 2012 **Revised** 20 May 2013 **Accepted** 25 May 2013

This paper should be cited as: Maleki F, Sarafpoor S. [Assessment of pure and B hydatid cyst fluid antigens for the diagnosis of hydatidosis]. J Gorgan Uni Med Sci. 2014; 16(2): 74-81. [Article in Persian]