

## **Antigens From Pig Cysticercosis And Their Valuability In Diagnosis Of Human Cysticercosis By Shimaa A. Abdel-Radi<sup>1</sup> , Yosra N. Abd El-Hafez<sup>2</sup> And Ayman T. Morsy<sup>3</sup>**

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Human cysticercosis is a serious disease caused by *Cysticercus cellulose* (C.c.); the larval stage of *Taenia solium*. The disease affects pigs and pork meat consuming people. Cysticercosis was diagnosed in pigs during post-mortum (P.M.) inspection while specific serologic one must be used for human diagnosis of cysticercosis. The present study evaluated the diagnostic sensitivity and specificity of three antigens, extracted from living non-calcified C.c. larvae from naturally infected pig muscles, in diagnosis of infection by cysticercosis in human and pigs by using ELISA. The results showed that C.c. fluid Ag (C.c. Fl) proved to be the most sensitive one followed by C.c. scolices Ag (C.c. Scol) and then C.c. wall Ag (C.c. Wl), with sensitivities of 85.55%, 74.44% & 67.77%, respectively. C.c. Fl-Ag gave the high sensitivity (73.33%) in diagnosis cysticercosis infection in suspected patients with perfect classification for Kapp agreement. Moreover, C.c. Fl-Ag showed high median ELISA optical density (OD) value, but without significant difference ( $p \geq 0.05$ ) for OD values in diagnosis of infection in human or pig sera. Also, C.c. Fl-Ag gave the highest specificity 92.5%, in excluding cross reaction versus other human hepatic diseases as schistosomiasis mansoni, Hepatitis C virus and hydatidosis as well as trichinosis spiralis Abs in infected pigs. The C.c. Fl-Ag contained the highest number (13) of specific immunogenic fractions by using EITB, which fractionated at the MW of 140, 135, 130, 105, 100, 95, 68, 58, 45, 35, 28, 25 & 22 kDa. But, the fractionated C.c. Wl-Ag contained ten immunogenic fractions at MW of 100, 75, 68, 63, 58, 45, 42, 35, 25 & 18 kDa, and the C.c. Scol-Ag contained nine fractions at MW of 135, 100, 68, 66, 63, 58, 45, 42 & 35 kDa. Consequently, suitability of C.c. Fl-Ag antigen could be used for epidemiological study of zoonotic cysticercosis by using ELISA..