

## INCIDENCE OF *HYMENOLEPIS NANA* AMONG PATIENTS ATTENDING AL-MAHAWEEL HOSPITAL, BABYLON PROVINCE

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**ABSTRACT :** The study performed on patients attending Al-Mahaweel Hospital. Out of 400 faecal samples examined, 6(1.5%) were infected with *H. nana* parasite high infection recorded in spring (2.8%) followed in autumn (2.1%), while no infection detected in summer. In concern to sex, out of 199 males examined, 4 males infected (2%), while only 2 females found infected out of 201 females examined (1%). Category ranged from one day to 5 years, show high infection (11.8%), the infection decrease in the category more than 15 years old (0.33%) clinical sign of *H. nana* among patients was studied.

**Key words :** Incidence, *H. nana*, patients, Iraq.

### INTRODUCTION

The infection of human intestine by different types of parasites, consider medical and public health problem became about 10% of people in the developed countries, found infected with worms (Al-Saeed *et al*, 2001; Chakma *et al*, 2000; Crompton, 1999). *Hymenolepis nana* were the most common human infection and about 50 to 75 millions of people in the world are carriers (Arora and Arora, 2006). In Burkina Faso (Bagoyan *et al*, 2015) found that rate of infection with *H. nana* among primary school children was 3.22%. The infection with parasite is endemic in Iraq and since 1970s decade. Al-Jeboori and Shafiq (1976) recorded *H. nana* infection among people in Baghdad. Many recent previous studies in Iraq show that infection still endemic in different percentage and in different parts of the country (Yakoop and Hadi, 2009; Al-Marsome, 2012) found that rate of infection with *H. nana* among children in Baghdad was 1.8% and 6.87%, respectively. In the north of Iraq, (Al-Daoody *et al*, 2017) exhibited that rate of infection with *H. nana* parasite was 4.04% in Erbil city. In the year 2007 (Musa, 2017) in her survey found that infection with *H. nana* was recorded in most governorates of Iraq and only in Babylon there was 22 positive case for the infection with parasite.

The present study aimed to study the recent prevalence of *H. nana* in Babylon governorate in order to find solution that could decrease the infection rate among population in the city.

### MATERIALS AND METHODS

A total of 400 stool samples were collected from patients attending Al-Mahaweel General Hospital for period from September, 2016 to June, 2017. Samples transmitted to laboratories in plastic labeled cups and examined macroscopically (Consistency, colours, adult worms or segment blood, Mucus) and Microscopically by 2 methods. Direct smear done by using two clean slides, one with drop of normal saline, the second with drop of Iodine solution and by wood stick, stool sample mixed on the 2 slides, covered by cover – slip and examined under light Microscope. To ensure the previous finding by direct smear, stool samples examined by flotation method using saturated salts solution (Al-Jeboori, 2002). Statistical analysis : Data analyzed by using chi-square ( $\chi^2$ ).

### RESULTS AND DISCUSSION

The present study shows low rate of infection with *H. nana*, when only 6 patients found infected (1.5%) from total of 400 patients examined. This result consider low comparison to previous studies performed in many governorates of Iraq (Al-Marsome, 2012; Al-Daoody *et al*, 2017; Musa, 2017) and this may be attributed to increase health awareness and role of health institutions to control prevalence of the parasite (Table 1). In regard to seasonal variations, highest infection was in spring and lowest in winter, this results was in agreement with (Yakoop and Hadi (2009), who recorded high infection (3.44%) in spring (Table 2) and this may be related to