

식품-매개 기생충 질환

Food - borne Parasitic Diseases

Jong - Yil Chai, M.D.

Department of Parasitology and Tropical Medicine

Seoul National University College of Medicine

E - mail : cjy@snu.ac.kr

Abstract

This article briefly reviews parasites transmitted by food materials and their diseases in Korea. They are taxonomically classified into 31 species of helminths, which include nematodes(6 species), trematodes(20), cestodes(6), and 1 species of protozoan. The food materials serving as the source of human infections are fishes, snails, crustacea, amphibia, reptiles, and mammals. These parasites include those that have been veiled by the previously common and well - known parasites such as *Ascaris* and *Trichuris*, and those that have been newly identified as human - infecting parasites. For prevention of these infections, avoidance of raw or improperly cooked foods is the most important strategy.

Keywords : Parasitic diseases;

Food - borne diseases;

Nematodes; Trematodes:

Cestodes; Protozoa

1. $\frac{1}{2}$ 2. $\frac{1}{3}$ 3. $\frac{1}{4}$ 4. $\frac{1}{5}$ 5. $\frac{1}{6}$

•

(1)

30

(food - borne parasites),
(zoonotic parasites),
(opportunistic parasites)

(helminth)

(2), (protozoa)

(6

20 , 6), 1 (1).

가 가가

(3) , (, 가), , ,
(,) . -

1. (Anisakis simplex), (A. phytosecteris), (Pseudoterranova decipiens)

가 .
 .
 (acute abdomen)
 . , , , , ,
 , , ESR 가,
 .
 가 ,
 가
 . , ,
 .
 1:1 ,
 ,
 , , ,
 4가 .
 ,
 가
 .
 .
 .
 .
 가

2. (*Trichinella spiralis*)

가
 가
 1997 12 3
 , , ,
 , 1 ,
 (5). 3
 ,
 . 5 가 가 (6).
 가 ,
 가 .
 3. (*Capillaria philippinensis*)
 1968 Luzon
 6~7
 가 가
 10%가 . 1993
 (7) 3 가 ,
 (8).
 가
 가
 . , ,
 . 2~8 가
 .
 가 al-bendazole
 가가 .

4. (*Gnathostoma spinigerum*)

가 ,
 가 .

가 가 10 .
가 60 .
ELISA
(9).
, praziquantel 25 mg/kg
1 3 , 1~3 (11).
40 mg/kg 1 .
1. (*Clonorchis sinensis*)
가
. 1 cm
. 가
, (), , ,
40 가 .
2. (*Fasciola hepatica*)
, 가
, 가 30
, (cho- (12, 13).
(1, 10). (12).
(10) 5 1980
13,373 21.5%가 ELISA , ,
triclabendazole .
() 40.2% .
3. (*Paragonimus westermani*)
, , 가
, 1
() (cercaria) . 가
가 , ,
(meta- (ectopic parasitism)
cercaria) . (1).
가 가
, , ,

가

가 , 가 , ,

가 , ,

X 가

(ELISA)

Praziquantel 10 mg/kg 1

(1).

(CT),

(MRI) praziquantel 25 5.

(*M. takahashii*), (*M. miyatai*)

mg/kg 1 3 , 2 . *Metagonimus* (屬) 가 1

4. 가 (*Metagonimus yokogawai*) (14, 16).

가 , 3 가 2 가

, 가

, ,

가 (14).

30~40%가 , 가

(15).

1 mm .

가 .

6. 가 (*Centrocestus armatus*)

42~48 (circumoral spines)

가 ,

가 . 1

(14), 가

. .

(intervillous space)

7. (*Heterophyes nocens*),

(crypt) , , (*Pygidiopsis summa*)

(14). 가

(14). (, 가) 8 1981

가

(mulets), (perches), (gobies), , ,

(shads), (samons), (trouts) . (14). 가 가

가 1~2 mm .

, , 가

, , . Praziquantel .

. 가

가 가 , , 8. (*Heterophyopsis continua*),

가 , , , (*Stellantchasmus falcatus*)

. (*H. continua*) ,

가 (14). , , .

(*H. nocens*) , , ,

, (*Heterophyes* 가

heterophyes) , , , 2 1984

. ,

(14). 가 .

가 가

가

1981 52 가

, 가 .

, , . Praziquantel .

(14). 1990 55 (*S. falcatus*)

, (, , , .

) 43%가 , , ,

(17). 가 ,

(18, 19). , , .

가 . 1984

Praziquantel 10 mg/kg 1 .

(*P. summa*) , (14).

, , , 가 .

, , 가

- , 가
 . Praziquantel . 가
 가 , 79
9. (*Stictodora fuscata*), (14).
 (*Stictodora lari*) . ()
 , , , 22.4%가
 . , , (14).
 . (*S. fuscata*) , , .
 1988
 ,
 (14). ,
 13% 3
 (17). 가 (21).
 . 가
 . Praziquantel 가 praziquantel 10 mg/kg
 . (1) .
 (*S. lari*) ,
 , , 11. (*Echinostoma cinetorchis*)
 6 1997
 , , , , , ,
 (20). .
 , ()
10. (*Echinostoma hortense*) (14).
 (echinostomes)
12. (*Echinochasmus japonicus*)
 4가 . 가 10
 1 cm (head crown) (14), ~
 (collar spines) . 가 ,
 20 , ,
 .
 (*E. hortense*) 4가
 가 가 1983 가 가

13. *(Acanthoparyphium tyosenense)*

10 가
(22), 가
, , , (praziquantel) 10 mg/kg 1
가
가

14. *(Plagiorchis muris)*

1 가 (23), 1. *(Diphyllbothrium latum)*
가 10 m “ ”

15. *(Neodiplostomum seoulense)*

가 1971
1982 가 (27), 50
(14, 24). 가 (28). 가
, , , 가
가
가 2 , ,
1~2
가가 , , 가
(praziquan- 가 가
tel) 10 mg/kg 1 가 가 B12

16. *(Gymnophalloidse seoi)*

1988 1993 praziquantel 10 mg/kg 1
, 25 , 2. *(Diphyllbothrium yonagoense)*
(25, 26). , , (diphyllbothriids)
가

504 -

2. . 1989 ; 32(8) : 821 - 33
3. 가 . 1999 ; 42(6) : 583 - 90
4. 2 . 1990 : 79 - 97
5. Sohn WM, Kim HM, Chung DI, Yee ST. The first human case of *Trichinella spiralis* infection in Korea. Korean J Parasitol 2000 ; 38(2) : 111 - 5
6. 가 . 2003 ; 35(3) : 180 - 4
7. Lee SH, Hong ST, Chai JY, Kim WH, Kim YT, Cross JH, et al. A case of intestinal capillariasis in the Republic of Korea. Am J Trop Med Hyg 1993 ; 48(4) : 542 - 6
8. Hong ST, Kim YT, Choe GY, Min YI, Cho SH, Lee SH, et al. Two cases of intestinal capillariasis in Korea. Korean J Parasitol 1994 ; 32(1) : 43 - 8
9. Chai JY, Han ET, Shin EH, Park JH, Chu JP, Nawa Y, et al. An outbreak of gnathostomiasis among Korean emigrants in Myanmar. Am J Trop Med Hyg 2003 ; 69(1) : 67 - 73
10. Seo BS, Lee SH, Cho SY, Chai JY, Hong ST, et al. An epidemiologic study on clonorchiasis and metagonimiasis in riverside areas in Korea. Korean J Parasitol 1981 ; 19 : 137 - 50
11. Rim HJ. The current pathobiology and chemotherapy of clonorchiasis. Korean J Parasitol 1986 ; 24(suppl) : 1 - 141
12. Cho SY, Yang HN, Kong Y, Kim JC, Shin KW, Koo BS. Intraocular fascioliasis : a case report. Am J Trop Med Hyg 1994 ; 50(3) : 349 - 53
13. . *Fasciola* praziquantel 7 . 1997 ; 29(5) : 417 - 21
14. Chai JY, Lee SH. Food - borne intestinal trematode infections in the Republic of Korea. Parasitol Internat 2002 ; 51 : 129 - 54
15. Chai JY, Han ET, Park YK, Guk SM, Kim JL, Lee SH. High endemicity of *Metagonimus yokogawai* infection among resi-
- dents of Samchok - shi, Kangwon - do, Korean J Parasitol 2000 ; 38(1) : 33 - 6
16. Saito S, Chai JY, Kim KH, Lee SH, Rim HJ. *Metagonimus miyatai* sp. nov.(Digenea : Heterophyidae), a new intestinal trematode transmitted by freshwater fishes in Japan and Korea. Korean J Parasitol 1997 ; 35(4) : 223 - 32
17. Chai JY, Nam HK, Kook J, Lee SH. The first discovery of an endemic focus of *Heterophyes nocens* (Heterophyidae) infection in Korea. Korean J Parasitol 1994 ; 32(3) : 157 - 61
18. Chai JY, Kim IM, Seo M, Guk SM, Lee SH, et al. A new focus of *Heterophyes nocens*, *Pygidiopsis summa*, and other intestinal flukes in a coastal area of Muan - gun, Chollanam - do. Korean J Parasitol 1997 ; 35(4) : 233 - 8
19. Chai JY, Song TE, Han ET, Guk SM, Park YK, et al. Two endemic foci of heterophyids and other intestinal fluke infections in southern and western coastal areas in Korea. Korean J Parasitol 1998 ; 36(3) : 155 - 61
20. Chai JY, Han ET, Park YK, Guk SM, Park JH, Lee SH. *Sticodora lari* (Digenea : Heterophyidae) : the discovery of the first human infections. J Parasitol 2002 ; 88(3) : 627 - 9
21. Chai JY, Hong ST, Lee SH, Lee GC, Min YI. A case of echinostomiasis with ulcerative lesions in the duodenum. Korean J Parasitol 1994 ; 32 : 201 - 5
22. Chai JY, Han ET, Park YK, Guk SM, Lee SH. *Acanthoparyphium tyosenense* : the discovery of human infection and identification of its source. J Parasitol 2001 ; 87(4) : 794 - 800
23. Hong SJ, Woo HC, Chai JY. A human case of *Plagiorchis muris* (Tanabe, 1922 : Digenea) infection in the Republic of Korea : freshwater fish as a possible source of infection. J Parasitol 1996 ; 82(4) : 647 - 9
24. Hong ST, Chai JY, Lee SH. Ten human cases of *Fibricola seoulensis* infection and mixed one with *Stellantchasmus* and *Metagonimus*. Korean J Parasitol 1986 ; 24(1) : 94 - 6
25. Chai JY, Choi MH, Yu JR, Lee SH. *Gymnophalloides seoi* : a new human intestinal trematode. Trends Parasitol 2003 ; 19(3) :

- 109 - 12
26. Lee SH, Chai JY. A review of *Gymnophalloides seoi* (Digenea : Gymnophallidae) and human infections in the Republic of Korea. Korean J Parasitol 2001 ; 39(2) : 85 - 118
 27. Cho SY, Cho SC, Ahn JH, Seo BS. One case report of *Diphyllobothrium latum* infection in Korea. Seoul J Med 1971 ; 12 : 157 - 163
 28. 1989 ; 27 : 213 - 6
 29. Lee SH, Chai JY, Hong ST, Sohn WM, Choi DI. A case of *Diphyllobothrium yonagoense* infection. Seoul J Med 1988 ; 29 : 391 - 5
 30. Lee SH, Chai JY, Seo BS, Cho SY. Two cases of human infection by adult of *Spirometra erinacei*. Korean J Parasitol 1984 ; 22(1) : 66 - 71
 31. Eom KS, Jeon HK, Kong Y, Hwang UW, Yang Y, Rim HJ, et al. Identification of *Taenia asiatica* in China : molecular, morphological and epidemiological analysis of a Luzhai isolate. J Parasitol 2002 ; 88(4) : 758 - 64
 32. Chai JY, Lin A, Shin EH, Oh MD, Han ET, Lee SH, et al. Laboratory passage and characterization of an isolate of *Toxoplasma gondii* from an ocular patient in Korea. Korean J Parasitol 2003 ; 41(3) : 147 - 54