

## Ten Human Cases of *Fibricola seoulensis* Infection and Mixed One with *Stellantchasmus* and *Metagonimus*

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A group of soldiers of Korean Army in Seoul was examined for their intestinal parasites by both cellophane thick smear and formalin-ether concentration techniques, from May to December, 1985.

A total of 10 cases passed the eggs of *Fibricola seoulensis* in their feces. The egg positives were treated with praziquantel and the worms were collected in four of them after magnesium salt purgation. Six egg positives were treated but worm collection was not tried.

The personal history of the egg positives and the results of worm recovery are shown in Table 1. Worm collection failed in 3 cases because of poor stool collection, but from a case, 59 flukes of *Fibricola*, 68 *Metagonimus* and 2 *Stellantchasmus* were collected.

*Fibricola* specimens were identified as *F. seoulensis* (Seo *et al.*, 1964 & 1982) based by their morphological characteristics. Nine ova positives

who were not proved by the worm, however, could be regarded as fibricoliasis cases. The differentiation of the eggs, *i.e.*, 85~100 $\mu$ m in length, elliptical but slightly asymmetric in shape, thin-shelled, golden yellowish, immature and operculated, should include *Paragonimus* and *Echinostoma* as well as *Fibricola* or other diplostomatid flukes. The eggs of *Paragonimus* has a distinct operculum at the blunt end, and abopercular thickening of shell, and therefore, it can be easily excluded. Also the eggs of *Echinostoma* are ruled out because they are 99~116 $\mu$ m long and have abopercular wrinkling of shell (Seo *et al.*, 1980). However, because the possibility of presence of the diplostomatid flukes which have similar eggs cannot be denied in Korea, they should be considered in diagnosis of *Fibricola* by eggs only. However, other diplostomatid flukes are not known up to present in this country except for *Pharyngostomum*.

Table 1. Histories of *Fibricola* egg positive cases

Case No.	Name(Age/sex)	EPG	Date of snake ingestion	Dose of praziquantel	Remarks
1	A C S (23/M)	100	'83. Dec.	20mg/kg	
2	C H Y (26/M)	0	—	75mg/kg	mixed with <i>C. sinensis</i>
3	K S K (23/M)	0	—	75mg/kg	mixed with <i>C. sinensis</i>
4	H I S (24/M)	0	—	20mg/kg	
5	MKW(24/M)	—	'83. Oct.	20mg/kg	
6	KMK(26/M)	0	—	20mg/kg	
7	P K I (23/M)	0	'84. Jan.	20mg/kg	*
8	C S T (26/M)	0	'83. Dec.	20mg/kg	*
9	K S I (25/M)	—	'83. Dec.	10mg/kg	*
10	K Y K (25/M)	—	'84. Apr.	10mg/kg	**

\* Worm collection was tried, but none was collected.

\*\* 59 *Fibricola*, 68 *Metagonimus*, 2 *Stellantchasmus* were collected.

Although the eggs of *Pharyngostomum* are closely similar with those of *Fibricola*, they can be differentiated by the egg length 107~120  $\mu$ m (Cho *et Lee*, 1981). Furthermore, *Fibricola* has been recorded from human, and known of its nation-wide distribution. Therefore there is no problem in diagnosis of the fibricoliasis cases by egg differentiation only in this study.

All of the fibricoliasis cases had histories of ingestion of raw or undercooked flesh of snakes or frogs during their survival trainings just the same as previous 15 cases (Hong *et al.*, 1984). All of them were chronically infected and had no symptoms as observed in the case of acute fibricoliasis (Seo *et al.*, 1982).

They were reexamined after 2~6 months, and all were found egg negative. Two cases were treated with 10mg/kg single dose of praziquantel, 6 were with 20mg/kg, and 2 cases who were mixed infected with *Clonorchis*, were with 25 mg/kg $\times$ 3, but all were cured parasitologically. Praziquantel 10mg/kg seemed to be effective in

treatment of human fibricoliasis.

*Stellantchasmus falcatus* has been found from 2 human cases in Korea (Seo *et al.*, 1984). Each of the 2 worms collected from the present case had a characteristic muscular seminal vesicle (expulsor). Body length was 0.64mm and 0.44 mm in respect. Their measurements (Table 2) and morphological characteristics were compatible with the previous descriptions (Onji *et Nishio*, 1915; Seo *et al.*, 1984). Therefore, they were identified as *S. falcatus*. The present one is the 3rd recorded human case of *S. falcatus* infection in Korea.

## REFERENC

**Table 2.** Measurements of *Stellantchasmus falcatus*(mm)

	Specimen 1	Specimen 2	Mean
Body length	0.641	0.438	0.539
width	0.271	0.271	0.271
Oral sucker length	0.036	0.031	0.033
width	0.049	0.043	0.046
Pharynx length	0.038	0.031	0.034
width	0.023	0.026	0.024
Ventral sucker length	0.036	0.033	0.034
width	0.026	0.023	0.024
Seminal vesicle			
length	0.102		0.102
width	0.036		0.036
Testis			
right length		0.077	0.077
width		0.064	0.064
left length		0.064	0.064
width		0.071	0.071

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=국문요약=

***Fibricola seoulensis*감염 10례 및 *Stellantchasmus falcatus*감염 1례**

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서울에 소재한 육군장병의 검변에서 *Fibricola*의 총란 양성자 10명을 관찰하여 프라지관텔로 치료하고, 이 중 한례에서 *Fibricola seoulensis*의 성충 59마리, 요꼬가와흡충 68마리 및 *Stellantchasmus falcatus* 2마리를 관찰하였다.