

ANNUAL PROGRESS REPORT

SEATO Medic Study No. 20 Studies on Opisthorchis viverrini in Thailand -
Incidence of Opisthorchis viverrini in Remote
Villages

Project No. 3A 025601 A 811 Military Medical Research Program
S. E. Asia

Task 01: Military Medical Research Program
S. E. Asia

Subtask 01: Military Medical
SEASIA (Thailand)

Reporting Installation: US Army-SEATO Medical Research Laboratory,

Associate Investigator: MGt Max M. Winn

Reports Control Symbol: MEDDH-238

Security Classification: UNCLASSIFIED

ABSTRACT

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Village.

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SEASIA (Thailand)

Reporting Installation: US Army-SEATO Medical Research Laboratory,
APO 146, San Francisco, California.

Division of Medical Research Laboratories
Department of Medical Zoology

Period Covered by Report: 1 April 1963 to 31 March 1964

Principal Investigator: Major Dale E. Wykoff, MSC

Associate Investigator: SGT Max M. Winn

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The object of this study is to determine the prevalence of O. viverrini infections in rural areas of Thailand. Over 5200 persons in remote villages of the northeast were examined by the formalin-ether fecal concentration technic. It was found that 90% of all examinees over the age of ten harbored this parasite, while 78% of the entire examined population were infected. Age-sex data were plotted and it was found that there was no significant difference between the two sexes at any age level. Based on the present findings, it is estimated that over 3.5 million persons in Thailand are infected with this hepatic trematode.

BODY OF REPORT

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Period Covered by Report: 1 April 1963 to 31 March 1964

Principal Investigator: Major Dale E. Wykoff

Associate Investigator: MSGt Max M. Winn

Reports Control Symbol: MEDDH-288

Security Classification: UNCLASSIFIED

Final Report

Objective: This study was designed to ascertain the prevalence of O. viverrini infections in the human population of northeast Thailand.

Description: Stool specimens were collected from many remote villages lying between 15 and 40 miles from the Thai-Lao border. They were brought to the laboratory in Udorn and concentrated by the formalin-ether technic.

Progress: A total of 5213 persons have been examined. An analysis of the data revealed that after the age of ten, 90% of all examinees harbored the parasite. Of the entire population at risk, 73% were positive (4090 out of 5213). There was no significant difference between prevalence of sex at any of the five-year-increment age levels. The findings are summarized in the following Table.

AGE-SEX DISTRIBUTION OF OPISTHORCHIS VIVERRINI INFECTIONS IN NORTHEAST THAILAND

AGE	M A L E S			F E M A L E S			T O T A L		
	No.	+	%+	No.	+	%+	No.	+	%+
0-5	442	157	36	422	145	34	864	302	35
6-10	447	324	68	372	352	88	819	676	83
11-15	390	311	92	366	291	93	756	602	80
16-20	217	194	89	275	246	89	492	440	89
21-25	179	162	91	200	179	90	379	341	90
26-30	190	168	88	219	195	89	409	363	89
31-35	136	127	89	123	117	91	259	244	94
36-40	143	130	91	147	133	90	290	263	91
41-45	110	101	92	100	90	90	210	191	91
46-50	112	101	90	105	98	98	217	199	92
51-55	67	61	91	64	57	89	131	118	90
56-60	72	66	92	75	69	92	147	135	92
61-65	49	44	94	35	31	94	84	75	89
66-70	41	37	90	34	30	88	75	67	89
70	42	40	95	39	34	87	<u>81</u>	<u>74</u>	<u>91</u>
	T O T A L						5213	4090	78

Conclusion: It is concluded that the prevalence of this parasite is considerably greater than previously believed, and that some 3.5 million Thais harbor this parasite.

List of Publications: This report is being incorporated in the following paper which is now in manuscript and which will be submitted for publication in May 1964: Wykoff, D. E., Harinasuta, C., Juttijudata, P., and Winn, M. M. Studies on Opisthorchis viverrini in Thailand - Notes on the life cycle and comparison with O. felineus.