

UNCLASSIFIED

AD 4 3 9 2 5 5

DEFENSE DOCUMENTATION CENTER

FOR

SCIENTIFIC AND TECHNICAL INFORMATION

CAMERON STATION, ALEXANDRIA, VIRGINIA



UNCLASSIFIED

NOTICE: When government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related government procurement operation, the U. S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.

64-13
12
QUARTERLY
REPORT 15-31
CONTRACT NO DA 92 557 - FEC - 35859
INCLUSIVE DATES 1 June 1962 TO 31 August 1962

SUBJECT OF INVESTIGATION

STUDIES ON IMMUNOLOGICAL
DIAGNOSIS AND THERAPY OF
PARAGONIMIASIS

RESPONSIBLE INVESTIGATOR

Dr. Muneo Yokogawa

Professor of Parasitology
School of Medicine
Chiba University
Chiba, Japan

U.S. Army Research & Development Group (9852) (Far East)

Office of the Chief of Research and Development

United States Army

APO 343

Chiba University
School of Medicine
Dept. of Parasitology

Muneo Yokogawa
Professor of Chiba University.

Contract No.
DA-92-557-FEC-35859

Date: 1 September 1962

Quarterly Report

Abstract report of the progress and phase of the work for one year from 1 March 1962 through 28 February 1963 and studied during the period from 1 June 1962 to 31 August 1962.

1. Studies on the minimum effective dose of Bithionol and roentgenological findings after treatment.

The purpose of the investigation is being made to determine the minimum effective dose of Bithionol on paragonimiasis.

This study was carried out on the patients visited themselves at National Kochi Hospital by the various subjective symptoms and diagnosed as paragonimiasis during the period from August 1960 to December 1961.

80 cases of paragonimiasis patients were divided into 4 groups. In each of the groups daily dose of 20 mg/kg, 30 mg/kg, 40 mg/kg and 50 mg/kg of Bithionol were given every other day ^{for} 5 to 15 doses respectively.

In all cases, the paragonimus eggs in stool and sputum have ^{become} ~~became~~ negative from 5 to 15 days after starting the medication of Bithionol.

In 78 cases out of 80 cases, paragonimus eggs have never reappeared during the period from 6 months to 1 year after treatment as shown in Table 1.

No significant differences concerning the times of disappearance of paragonimus eggs in stool and sputum among those groups received 5, 10 and 15 doses of 50 mg/kg, 10 and 15 doses of 40 mg/kg, 10 and 15 doses of 30 mg/kg and 15 doses of 20 mg/kg of Bithionol.

The frequency of the side effects due to Bithionol showed the tendency of decrease according to the decrease in the daily dose of Bithionol and also lower in children than that of adults.

The improvements of the pathological findings in chest X-Ray films taken immediately, 1, 3 and 6 months after treatment were shown in Table 2.

2. Studies on the minimum dose of Bitin (Bithionol) and Bitin-s-oxide.

The authors found that Bitin-s-oxide, a derivative of Bithionol, was more effective against the larvae of Paragonimus westermani in vitro than Bitin (Bithionol).

18 cases of paragonimiasis patients were found by means of screening method with intradermal test for paragonimiasis in Shika-machi, Ishikawa Prefecture.

These 18 cases divided into 2 groups. In each groups, daily dose of 10 mg/kg of Bitin and 10 mg/kg of Bitin-s-oxide were given 10 doses every other day. for

In all cases, the paragonimus eggs in stools became negative from 4 to 18 days after starting the medication.

This treatment has just finished on 7th August 1962. The follow-up studies of these cases are now being made by stool examination, complement fixation test and chest X-ray.

Table 1. Therapeutic effects

Daily dose	Method of administration	No. of doses	No. of cases cured	Therapeutic No. of cases	Effects No. of cases recurred
50 mg/kg	every other day	15	18	18	0
	"	10	4	4	0
	"	5	1	1	0
40 mg/kg	every other day	15	14	14	0
	"	10	12	12	0
	"	5	1	0	1
30 mg/kg	every other day	15	2	2	0
	"	10	14	14	0
	"	5	1	1	0
20 mg/kg	every other day	15	4	4	0
	"	10	9	8	1
Total			80	78	2

Table 2. Results of the follow-up studies on the chest
X-Ray findings of the patients.
(129 pathological shadows in 78 cases)

Lapse of the time after the treatment	disappeared	reduced	unchanged	Total
Immediately after	27(20.9%)	83(64.3%)	19(14.7%)	129
1-3 months	78(61.2%)	41(31.8%)	9(7.0%)	129
4-6 months	98(76.0%)	26(20.2%)	5(3.9%)	129