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### REPORT OF THE CHEMICAL EXAMINER TO THE GOVERN-MENT OF SIND FOR THE YEAR 1941.

No. 5019 OF 1942.

CHEMICO-BACTERIOLOGICAL LABORATORY, Karachi, 20th May 1942.

From

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CHEMICAL EXAMINER
TO THE GOVERNMENT OF SIND,
KARACHI.

To

THE SECRETARY TO GOVERNMENT,

GENERAL DEPARTMENT, Karachi.

Through

THE DIRECTOR OF PUBLIC HEALTH, SIND,

Karachi.

Sir,

I have the honour to submit the following annual report for the year 1941.

2. The work done during the year under report may thus be summarised:—

The number of article with medico-leg		in connect	tion	1,336
Samples of Governm	ent Stores and	d miscellan	eous	
articles				5
Samples from Excise	Department		***	920
Miscellaneous		•••		2
		Total		2,263

3. In the following table are shown the analyses under all heads during the past five years:—

Class.	1937	1938	1939	1940	1941
Medico-legal examination Government Stores, Miscellaneous	1,302	1,375	1,371	1,414	1,336
and Excise Other Miscellaneous	798	711	991	1,163	931
Total	2,108	2,093	2,365	2,583	2,273

### SECTION I.-MEDICO-LEGAL.

4. The Medico-legal cases examined during the year under report were received from Sind and Baluchistan, and are arranged in classes as under:—

Class I.—Cases of suspected hu	man poisoning		104
Class II.—Cases of suspected a	nimal poisoning		1
Class III.—Stain cases (Blood a	and Semen)		300
Class IV.—Miscellaneous	1.0/10/1/	••• ()	14
	Total		419

The following table gives the corresponding number of cases examined during the last five years:—

Class.	1937	1938	1939	1940	1941
Suspected human poisoning	101	98	106	113	104
Suspected animal poisoning	1	2	5	3.	I
Stain cases (Blood and Semen)	278	282	315	272	300
Miscellaneous	10	10	7	22	14
Total	390	392	433	410	419

419 Medico-legal cases and 2273 articles were examined during the year under report, as against 410 cases and 2583 articles in the year 1940.

5. Class I.—Cases of suspected human poisoning.—One hundred and four cases of this class were received for examination and report during the year. These cases, include not only those of poisoning of human beings but also cases in which the Medical Officers were unable to give any definite opinion as to the cause of death and hence were sent here for the investigation exclude any poison.

Out of the total one hundred four cases of suspected human poisoning, poison was detected in 37 cases as shown in Table No. II. The poisons commonly used were Dhatura, Opium and Arsenic. The details of these cases and the comparative figures for the quinquennium ending 1941 are given in the following table:—

Nature	e of poison.		1937	1938	1939	1940	1941
Opium	35 C. C.		18	33	18	4	9
Dhatura Arsenic	lou!"		5	II	12	13	H
Other poisons		0:	9	9 8	9 16	9	5
11214   2864	Total, Poisons	8	42	61	55	37	37
	No poison		59	37	51	76	67
Total	, Poison cases		IOI	98	106	113	104

Sixty-seven cases in which poison was not detected can be divided in three groups:—

(a) Cases in which some particular poison was suspected from the history, the symptoms during life or from post mortem examinations, but the analysis failed to confirm the suspicion.

Details of such cases are :-

Mydriatic	1				I
Intoxicants	***	100			3
Opium					I
Arsenic		10			2
Irritant	18.800	1 100 1100			I
Copper Sul	phate		3	•••	1
			Total		9
					-

(b) Cases in which the cause of death had been provisionally determined, yet viscera, etc., were sent to confirm such provisional diagnosis by excluding poisoning.

Details of such cases are given below:—

Malaria	*****	Miswellanesser	194	1
Heart failure	and,	ade him are sul-	book	6
Drowning		Live St. nevi	•••	5
Injury				5
Jaundice		muc Bone a Acc		2
Hanging	Herre	ing and Come pair		3
Asphyxia		I hadrow of the	nedliř.	2
Leprosy		Distriction of the		1
		Total	OI.	25

(c) In the remaining thirty three cases, there had been no definite evidence of any poisoning nor any other provisional cause of death could be determined on account of the death being unexpected or the body being found on a roadside and no definite cause of death being revealed at the post mortem examination.

- 6. Class II.—Cases of suspected animal poisoning.—One case under this class was examined during the year and poison was detected, vis., juice of calotropis gigantea.
- 7. Class III.—Stain cases.—Three hundred cases of this class were received for examination and reported during the year, of which 219 cases were suspected of having blood stains alone and the remaining 81 cases were suspected of having semen or semen and blood. Out of 219 cases suspected of having blood stains, blood was detected in 196 cases. During the year, 564 stains were forwarded to the Imperial Serologist, Calcutta, who reported that 467 were of human blood, 6 of ruminant animals, 1 of bird and the remaining 90 disintegrated.

Of the remaining 81 cases, 64 were of semen and 17 of semen and blood. These are classified as follows:—

Sodomy			 31
Rape			 24
Bestiality			 11
Under Section	ns 367, 36	6, 304 and 393	 15
	D 10 190	Total	 81

Out of the 81 cases, semen was detected in 22 cases, blood and semen in 5 cases and only blood in 9 cases.

8. Class IV.—Miscellaneous cases.—Fourteen cases under this head were received for examination and report. These included all cases falling outside Classes I, II and III. The details of cases examined under this class are given below:—

(i)	Explosives		Made !	1
(ii)	Dangerous Drugs Act	a esibn	Unit in	2
(iii)	Cheating and Criminal B	reach of trust		2
	Attempt to murder	··· ··· ···		I
(v)	Punjab Pure Food Act	•••		I
(VI)	Bombay Prevention of	Adulteration	Act,	
(vii)	Miscellaneous		•••	2
(111)	miscenaneous	•••		2
		Total	•••	14

9. Details of some interesting cases.—(i) The Civil Surgeon, Sukkur, sent viscera of a female with post mortem signs indicating the death due to strangulation. Pupils were stated to be normal. Opium was however detected in the viscera and stomach contents.

- (ii) Viscera were sent for examination by the District Medical Officer, Dadu, with the history that the mucus membrane of the bladder and kidney were highly congested and the death was probably due to Ureamia, but on examination Arsenic was detected in the viscera.
- (iii) At Hyderabad an unknown person was found dead near River Indus with bruises all over the body. The post mortem notes indicated that the death was due to Asphyxia but examination revealed Hydrocyanic Acid in the stomach and its contents.
- (iv) The viscera of an unknown peson found dead in the jungle near River Indus, was sent by the Civil Surgeon, Hyderabad, to exclude any poison. The body was in a highly decomposed state and no history was available, yet the examination revealed Arsenic in the viscera.

#### SECTION II.—GOVERNMENT MISCELLANEOUS.

10. Miscellaneous.—Eleven samples were forwarded by the following officers :-

> The Deputy Commissioner, Salt and Excise, Sind. The Director of Public Health, Sind.

The samples were-

•	rugs.—
	Liq. Morphia
	Tr. opium
	Pulvie Inecas

Tr. Canabis Indica Salt ... Quinine ... 5 Stone in bladder ... 1

> ... 11 (included in Table V) Total

### SECTION III, EXCISE ANALYSIS.

920 articles were examined for the Excise Department:-The samples were—

Medicinal prepara	tions		 333
Medicinal prepara	r B. P.	 341	
Denatured spirits			 117
Essences			 50
Toddy			 29
Opium			 10
Hydrometers and	neters	 6	
Liquors			 15
Molasses		•••	 2
Balagolies			 13
Wash			 1
Restricted drugs			 3

Total 920

# SECTION IV.—MISCELLANEOUS.

12. Six samples of this class were examined during the year under report.

The samples were:—

Cardamun			1
Gripe water			The second of the second
Liquorice root	•••	***	I
Beer	Marie Be		2
Salt			1
	Total		6 (included in Table V).

### WORKING OF THE LABORATORY.

13. Mr. H. C. Hiranandani was in charge of the laboratory from 1st January 1941 to 31st December 1941.

The work has been satisfactory.

I have the honour to be, Sir, Your most obedient servant,

O. M. AKBANI,

Chemical Examiner to the Government of Sind, Karachi.

TABLE No. I.

# Summary of work done.

	19	140.	1941.		
	Number of cases investigated.	Number of articles examined.	Number of cases investigated.	Number of articles examined.	
	2	3	4	5	
Human poisoning cases (a in Table No. II).	113	404	104	365	
Animal poisoning cases (b in Table No. 11).	3	5	1	1	
Stain cases (c in Table No. II).	272	887	300	878	
Human poisoning cases (a in Table No. II).  Animal poisoning cases (b in Table No. II).  Stain cases (c in Table No. II).  Miscellaneous Medico-legal cases (d in Table No. II).	22	118	14	92	
Total	410	1,414	419	1,336	
General analyses and other work.		1,169		937	
Grand Total	410	2,583	419.	2,273	

TABLE No. II.

## Showing results of Medico-legal Analysis according to cases.

			1940.		1941,		
	Nature of exhibits.	Total number of cases in vestigated.	Number of cases detected.	Total number of articles examined.	Total number of cases in- vestigated.	Number of cases detected.	Total number of articles
	1	2	3	4	5	6	7
1	1. Cases in which viscera and contents were tested for poison.	70	16	245	61	19	216
	The viscera of individuals Poison detected in Poison not detected in 40						-
II.	2. Cases in which tissues, other than viscera, were tested for poison.				***		
General.	Cases in which excreta, dejecta, vomit and stomach contents received without viscera were tested for poison.	28	15	54	27	9	42
	4. Cases in which miscellaneous articles were received.	15	6	41	16	9	49
	5. Cases in which miscellaneous articles were received with cases under entries 1, 2 and 3.	-	ITTE	64			58
1 2 1	6. Cases in which viscera or contents were examined.		10	A		-	-
Abortion.	7. Cases in which only miscellaneous articles were received.						
A	8. Cases in which miscellaneous articles were received with cases under entry 6.	4.0			***		
	Total (a)	113	37	404	104	37	36
۲9.	Cases in which viscera from horned cattle were tested for poison.	1					
10,		2		4			
11.	Cases in which animal tissues, other than viscera, were tested for poison.						
12.	Cases in which animal excreta, dejecta or stomach contents forwarded without viscera were tested for poison.					***	
13.			***	***	1	1	1
14.		-		-			-
	Total (b)		-			-	-

9

### TABLE No. II-contd.

		1940.			1941_	
Nature of exhibits.	Total number of cases in- vestigated,	Number of cases detected.	Total number of articles examined,	Total number of cases in- vestigated.	Number of cases detected.	Total number of articles examined.
1	2	3	4	5	6	7
						1 .
15 Blood-stain cases other than No. 16	187	165	639	219	197	722
16. Blood-stain, rape and un-natural crime cases.					**	
17. Seminal stain cases	71	36	195	64	16	} 156
18. Mixed blood and seminal stain cases	14	13	53	17	15	5 100
(19. Other stain cases						
Total (e)	272	214	887	300	228	878
20. Cases in which human bones, hairs, &c., were received.	22	13	118	14	3	92
Total (d)	22	13	118	14	3	92
GRAND TOTAL	410	264	1,414	419	269	1,336

### TABLE No. III.

Showing the nature of poisons detected according to articles received under Head Nos. 1 to 14 of Table No. 11.

		Н	uman p	oisoning	g.	Cattle poisoning.				
	Nature of poisons.		In viscera and contents.	In tissues other than viscera.	In vomits and faces.	In miscellaneous articles.	In viscera and contents.	In tissues other than viscera.	In excreta and dejecta.	In miscellaneous articles.
	ī		2	3	4	5	6	7	8	9
ı.	Dhatura		12		14	12				
2.	Arsenic		11		2	3				
3.	Opium		14		5	4				
4.	Hydrocyanic acid	***	7		3					
5.	Copper Sulphate				1	2				
6.	Strychnine		8		1	2				
7.	Lead oxide					1				***
8.	Mercury Salts					4				
9.	Calotropis gigantea			***						1
	Total number of article which poison was tected	de- 	52		26	28				1
	Total number of article which poison was detected	s in not	165		27	67		***		,
	GRAND TOTAL	+01	217		53	95				1

### TABLE No. IV.

Showing the places from which cases in which viscera were tested for poison have been received during the year 1941.

						Cattle poisoning		
	Dist	ricts.		Total number of cases examined.	Total number of cases in which poison was detected.	Total number of cases examined.	Total number of cases in which poison was	
1		2		3	4	Total number of cases examined.	6	
	Karachi			12	2			
	Hyderabad		•••	13	7	I	I	
	Sukkur			7	2			
	Larkana			5	2			
	Dadu			1	I			
stan.	Upper Sind From	tier		2				
luchi	Nawabshah			3	1			
Sind and Baluchistan.	Thar Parkar			12	5			
d an	Baluchistan			3				
Sin	Native States			3				
		Total		61	20	1	1	
	Number of cases in which poison was not detected.				41			
		l Total, 1941		61	61	1	1	
	Grand	l Total, 1940		70	70	1	1	

TABLE No. V.

General Analysis For Government Departments, etc.

Received	Nature of substance.	Number of examina- tion.	Increase or decrease over previous year,		
1			2	4	
Government (Stores a	and Miscellaneo	us).		11	+ 8
Excise Department		****		920	-240
Miscellaneous				6	
	Total, 1941			937	-232
	Total, 1940			1,169	



