

Kala Azar Outbreak in West Bengal

- *Prabir Chatterjee, Md Kabiul Akhter Ali, Neel Kamal and Ajay Chakraborty¹*

History

Kala azar (visceral leishmaniasis) has not been common in West Bengal after the 1960s. Historically it was highly prevalent in the late 19th century and early 20th century. Satyajit Ray's father died of Kala Azar. U.N. Brahmachari was credited with preparing Urea Stibamine and treating many patients in Kolkata.

Recent Trends

Kala azar has increased from 1238 cases in West Bengal in 2001 to 3015 cases in 2004 and from 756 kala azar cases in 2009 to 1962 cases in 2011. Cases decreased in Murshidabad from 810 in 2005 to 288 in 2011, while they increased in neighbouring Malda from 268 in 2009 to 827 in 2011. In 2011 there was a spurt in cases in Darjeeling and close by areas of Uttar Dinajpur in North Bengal. U Dinajpur reported just 58 cases in 2010 but 180 cases in 2011.

The Outbreak in Uttar Dinajpur

Six blocks of Uttar Dinajpur were considered endemic for Kala azar. Cases were highest in Karandighi and Dalua blocks. While the number of cases was almost the same every year from 2008 to 2012 in five blocks- one block- Dalua (Chopra) suddenly detected a large number of cases in 2011.

¹*Respectively Medical Officer, Kaliaganj Municipality, Uttar Dinajpur, West Bengal; NVBDCP Consultant, Uttar Dinajpur; District Epidemiologist, Uttar Dinajpur; and Deputy II Chief Medical Officer of Health, Uttar Dinajpur. Email contact: prabirkc@yahoo.com*

Locality

One area called Bohura Line in Debijhora Tea Garden (Majhiali Panchayat) had 30 patients. Another 34 patients were from other addresses in Debijhora and 6 more from other villages in Majhiali

Seasonal variation

Cases began to be detected in March and this continued till October 2011. Finally a special drive uncovered even larger numbers in December and 32 patients were diagnosed during this drive of which 22 were in this block (Dalua). There were another 48 KA in the first 6 months of 2012. 12 cases were reported in January 2012, 10 in February, 14 in March, 1 in April, 2 in May and 9 in June 2012.

Cases

In all 100 visceral leishmaniasis and 6 PKDL (Post-kala azar dermal leishmaniasis) cases were detected in this block. 72 patients were from tribal communities. There were 74 cases with 54 tribal patients in the other blocks. Tribal patients were 26 of 39 KA in Karandighi and 17 of 19 in Itahar, 6 of 7 in Kaliaganj and 5 of 6 in Raiganj. In Chakulia all 3 KA patients were non-tribal. Tribals consist of only 7% of the population of Dalua / Chopra, 7 % Karandighi, 7.9% Itahar, 5.8% of Raiganj, 4.6% of Kaliaganj, 6.2 % of Chakulia and 5.4 % of the district. This continued- in the first half of 2012 tribal cases (as a percentage of all Kala Azar) were Chopra 61%, Itahar all, Kaliaganj 50% and Karandighi 91%

Treatment:

About 89 to 94% of patients completed treatment.

Discussion

Kala azar is commonly found in remote areas and there is a general belief that it is common among

tribals. The vector is the sandfly (*Phlebotomus argentipes*). This small insect can not fly large distances in its life time, nor can it fly very high. It is easily excluded by use of a mosquito net. The sandfly is zoo-philic. It breeds in cracks and crevices. All these factors mean that those in one-storey wattle houses (or houses with cracked walls), sleeping on the floor or mats, who sleep in close proximity to domestic animals (cattle) and not using mosquito nets are more susceptible. So these may be the factors causing the larger numbers among tribals. Tea gardens in North Bengal are not doing well economically and Debijhora had very poor access to health services especially in the last decade. All these factors may have been involved in this exceptionally large outbreak.

Kala azar in West Bengal

2001 1238

2002 1592

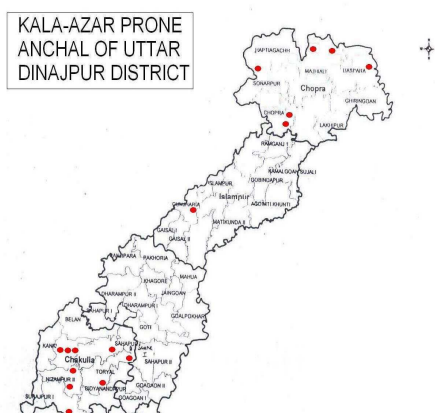
2003 1487

2004 3015

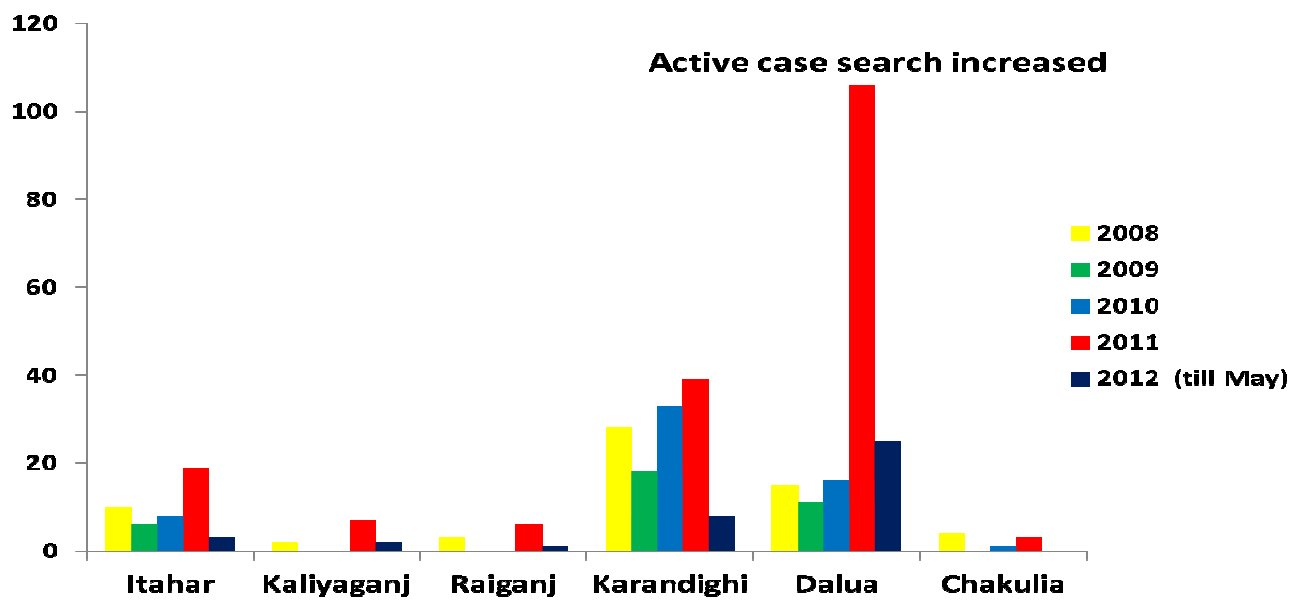
Table VIII.1.5 : Reported Cases and Deaths due to Kala-azar in West Bengal, 2005 - 2011

District	2005		2006		2007		2008		2009		2010		2011	
	Attack	Death	Attack	Death	Attack	Death	Attack	Death	Attack	Death	Attack	Death	Attack	Death
Darjiling	156	1	126	0	182	1	126	0	100	0	220	0	384	0
Uttar Dinajpur	108	1	60	0	56	0	62	0	35	0	58	1	180	0
Dakshin Dinajpur	253	2	333	1	285	1	197	2	124	0	120	0	129	0
Malda	559	3	429	0	535	0	497	0	268	0	630	3	827	0
Murshidabad	810	2	575	6	630	3	265	0	149	0	279	0	288	0
Nadia	7	1	13	2	3	2	0	0	6	0	17	0	13	0
North 24-Parganas	141	0	64	0	39	0	24	0	12	0	21	0	14	0
South 24-Parganas	494	3	140	1	36	0	41	0	42	0	66	0	33	0
Hugli	10	0	6	0	3	0	4	0	0	0	12	0	3	0
Bardhaman	41	2	58	0	22	1	14	0	6	0	10	0	39	0
Birbhum	131	0	39	0	26	1	26	1	14	0	42	0	52	0
Total	2710	15	1843	10	1817	9	1256	3	756	0	1475	4	1962	0

Kala Azar Map 2007



Number of Kala-azar cases U Dinajpur Blocks



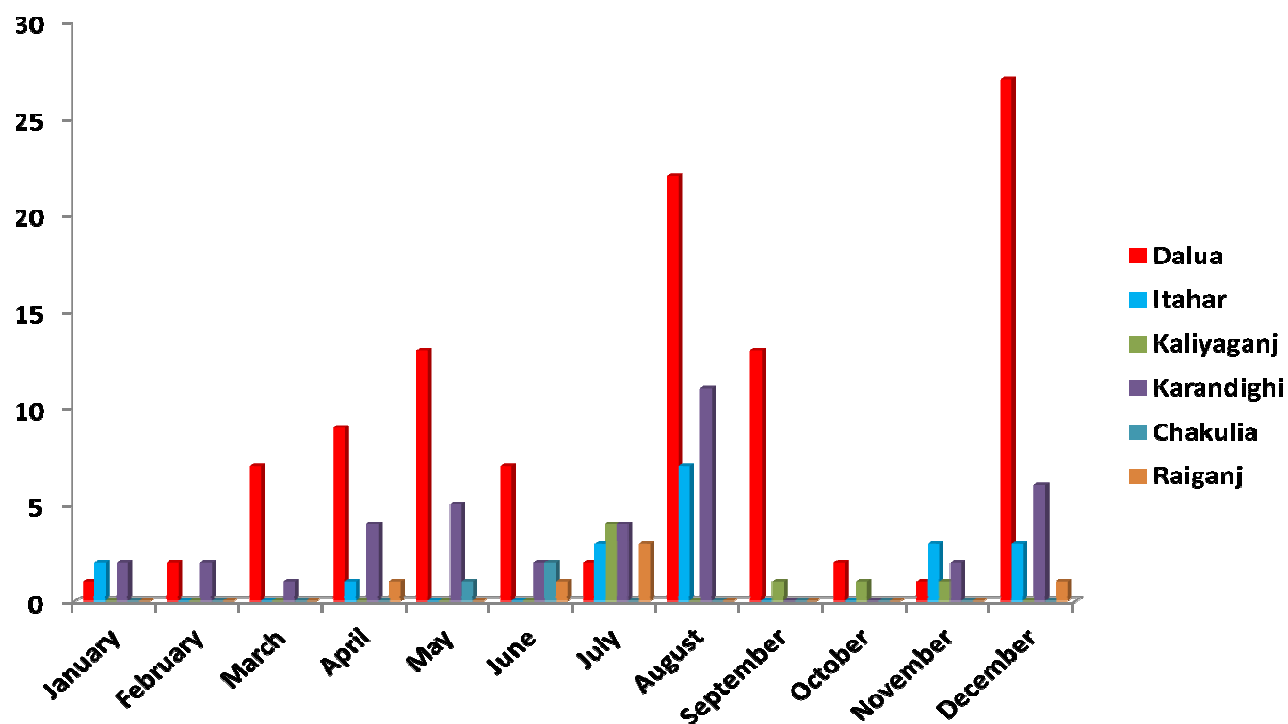
Kala azar in Uttar Dinajpur Blocks in 2011

Chakulia	3
Kaliyaganj	7
Itahar	19
Dalua	106
Karandighi	39
Raiganj	6

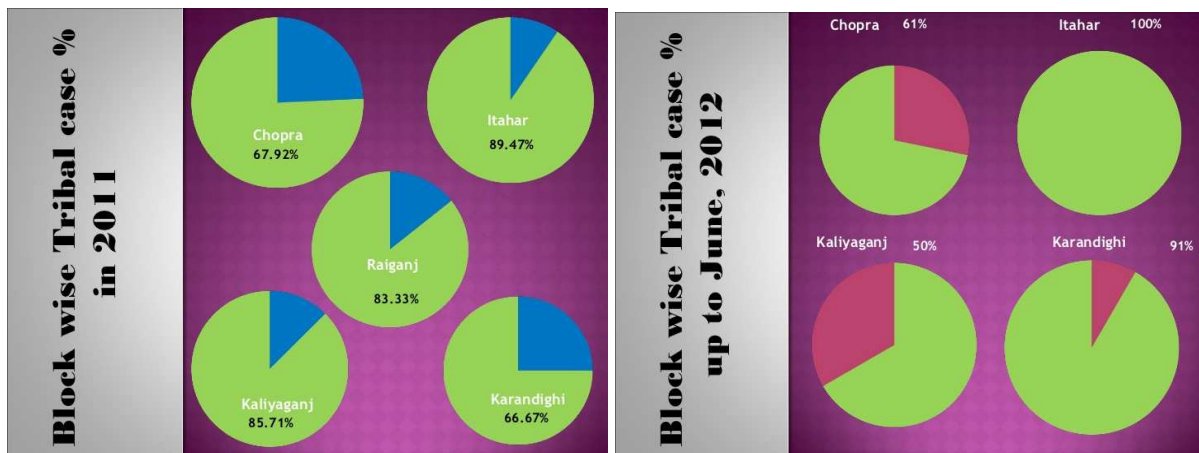
180

SI No.	Name of the Block/Municipality	Name of Institution	Population	SC %	ST %
1	Itahar	Itahar BPHC	284256	26.7	7.9
2	Kaliyaganj	Kaliyaganj BPHC	188540	60.5	4.6
3	Hemtabad	Hemtabad BPHC	129660	34.6	3.8
4	Raiganj	Raiganj BPHC	394674	38.4	5.8
5	Karandighi	Karandighi RH	363668	30.7	7.3
6	Goalpokher - I	Lodhan BPHC	272273	14.3	3.8
7	Goalpokher - II	Chakulia BPHC	250422	23.2	6.2
8	Islampur	Ramganj BPHC	265799	17.4	2.4
9	Chopra	Dalua BPHC	245670	18.5	7.1
10	Kaliyaganj (M)		57347		0.85
11	Raiganj (M)		182683		0.96
12	Dalkhola (M)		0		0.45
13	Islampur (M)		59280		1.16
Total			2694272	29.37	5.43

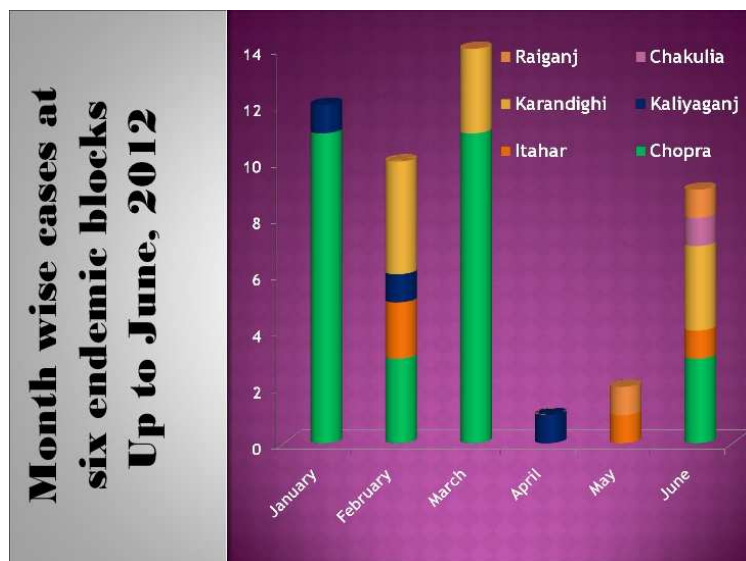
Month wise KA in 2011



Special Diagnostic and Kala azar Treatment Drive in U Dinajpur (21st November to 4th December 2011)



Name of the Block	Total nos of SC Surveyed	Total nos of Villages Surveyed	Total nos of Houses Surveyed	Population of the surveyed houses			Popn. Contract in those houses			Nos of suspected cases			Nos of cases screened by						Total nos of cases						
				M	F	T	M	F	T	M	F	T	rk39			Aldehyde				VL			PKDL		
													M	F	T	M	F	T		M	F	T	M	F	T
Karandighi	46	214	67019	187563	176379	363942	168807	156375	325182	228	185	413	23	22	45	0	0	0	3	1	4	0	0	0	4
Kaliyaganj	31	203	49502	118976	109568	228544	106554	97863	204417	98	79	177	29	21	50	0	0	0	0	1	1	0	0	0	1
Itahar	42	280	52424	140181	123186	263367	127861	110971	238832	152	143	295	41	28	69	0	0	0	3	0	3	0	1	1	4
Chakulia	35	228	48043	120574	105657	226231	103916	97305	201221	78	81	159	13	11	24	0	0	0	0	0	0	0	0	0	0
Chopra	34	512	55286	148901	127531	276432	129621	109271	238892	166	127	293	31	23	54	0	0	0	11	11	22	0	0	0	22
Raiganj	57	227	88896	230835	204075	434910	201492	192053	393545	107	126	233	15	17	32	0	0	0	0	1	1	0	0	0	1
TOTAL	245	1664	361170	947030	846396	1793426	838251	763838	1602089	829	741	1570	152	122	274	0	0	0	17	14	31	0	1	1	32



State Bureau of Health Intelligence
 Directorate of Health Services
 Government of West Bengal
 Swasthya Bhawan, GN-29, Sector-V
 Salt Lake, Kolkata - 700 091
 Website : www.wbhealth.gov.in

Health on The March 2011-12

LEVEL	NAME	TRU	No HH	TOT P	TOT M	TOT F	P_ST	M_ST	F_ST
TOWN	Islampur (M)	Urban	9735	52738	28145	24593	613	381	232
TOWN	Raiganj (M)	Urban	27549	165212	87458	77754	1509	812	697
TOWN	Kaliaganj (M)	Urban	10060	47650	24600	23050	407	203	204
C.D.BLOCK	Chopra	Total	41721	223022	115097	107925	15825	8112	7713
C.D.BLOCK	Islampur	Total	46118	241951	124263	117688	5833	2952	2881
C.D.BLOCK	Goalpokhar - I	Total	45266	245430	126465	118965	9273	4589	4684
C.D.BLOCK	Goalpokhar - II	Total	40849	226472	116758	109714	14086	7201	6885
C.D.BLOCK	Karandighi	Total	56920	318881	163811	155070	23398	11761	11637
TOWN	Dalkhola (CT)	Urban	2480	13895	7381	6514	63	38	25
C.D.BLOCK	Raiganj	Total	71075	362056	186848	175208	21149	10638	10511
TOWN	Nachhratpur Katabari (CT)	Urban	1028	5113	2684	2429	7	4	3
TOWN	Kasba (CT)	Urban	2061	9835	5245	4590	156	78	78
C.D.BLOCK	Hemtabad	Total	24999	118822	61192	57630	4523	2283	2240
C.D.BLOCK	Kaliaganj	Total	39222	190019	97805	92214	8656	4350	4306
C.D.BLOCK	Itahar	Total	51134	249541	127295	122246	19593	9841	9752
DISTRICT	Uttar Dinajpur	Total	464648	2441794	1259737	1182057	124865	63123	61742

