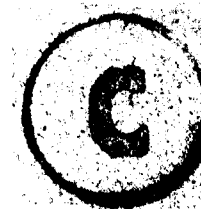


ANNUAL REPORTS AND STATISTICS
OF THE
GOVERNMENT GENERAL HOSPITAL
AND
THE BARNARD INSTITUTE OF RADIOLOGY, MADRAS
FOR THE YEAR 1936



MADRAS
PRINTED BY THE SUPERINTENDENT GOVERNMENT PRESS

1937

Price, Rs. 1/1

GOVERNMENT GENERAL HOSPITAL, MADRAS.

PART I.

GENERAL ADMINISTRATION REPORT, 1936.

Admissions—

<i>New cases treated.</i>				<i>Daily average including old cases.</i>			
		Out-patients.	In-patients.			Out-patients.	In-patients.
1936	..	141,930	16,893	1936	..	1,123.34	732.31
1935	..	134,081	15,963	1935	..	968.18	697.77

The following table shows the number of patients (Europeans and non-Europeans) treated during the past ten years :—

	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	Average for ten years.
<i>In-patients.</i>											
Total treated—											
Non-Europeans ..	11,382	12,085	11,742	12,677	12,512	13,347	13,043	13,670	13,861	14,027	12,894
Europeans ..	1,776	1,734	1,853	1,939	1,735	1,874	1,942	2,088	2,102	2,266	1,925
Average daily sick—											
Non-Europeans ..	451.85	444.38	452.11	465.91	474.88	501.76	522.51	522.40	595.97	623.18	505.50
Europeans ..	79.30	78.02	83.61	87.83	82.49	83.65	90.98	102.03	102.60	109.13	89.93
<i>Out-patients.</i>											
Total treated—											
Non-Europeans ..	61,708	69,189	71,295	77,300	86,057	87,688	1,01,428	116,364	125,885	132,654	90,957
Europeans ..	4,787	5,225	5,427	5,999	6,399	6,433	6,918	7,711	8,196	9,276	6,637
Average daily sick—											
Non-Europeans ..	438.54	536.42	613.79	666.29	717.72	738.65	832.47	963.31	921.67	1,076.87	750.57
Europeans ..	21.40	41.85	38.41	36.42	35.71	40.32	38.56	43.16	46.51	46.47	38.88

The results of the treatment of in-patients compared with the last two years are as follows :—

	Cured.	Relieved.	Discharged otherwise.	Died.
<i>1934.</i>				
Non-Europeans ..	6,081	4,366	2,148	1,075
Europeans ..	1,191	668	140	89
Total ..	7,272	5,034	2,288	1,164
Percentage ..	46	32	15	7
<i>1935.</i>				
Non-Europeans ..	6,486	4,128	2,096	1,153
Europeans ..	1,226	585	180	111
Total ..	7,712	4,711	2,276	1,264
Percentage ..	48.3	29.5	14.3	7.9
<i>1936.</i>				
Non-Europeans ..	6,750	4,811	1,940	1,126
Europeans ..	1,334	649	173	110
Total ..	8,084	5,460	2,113	1,236
Percentage ..	48	32	13	7

Professional work.—Professional notes from Medical Officers of the Hospital are printed as Part III of this report and detailed medical statistics as Part IV :—

The following table shows the total operative work done during the years 1934, 1935 and 1936 :—

	1934.	1935.	1936.
Number of persons remaining from last year ..	76	79	58
Number of operations performed during the year—			
(a) Primary ..	5,846	*24,790	*28,314
(b) Secondary ..	594	206	158
(c) Total ..	6,440	24,996	28,472
Number of patients operated on in (a), (b) and (c) above ..	5,846	24,790	28,314
Results of operations on patients—			
Cured ..	5,045	24,018	27,791
Relieved ..	683	720	407
Discharged otherwise ..	115	69	72
Died ..	..	..	..
Number of patients remaining at close ..	79	58	101

* Includes dental operations.

Epidemic.—The following infectious diseases were treated during the years 1934, 1935 and 1936 :—

	1934.	1935.	1936.
Influenza ..	550	444	520
Typhoid ..	308	322	458
Smallpox ..	7	11	2
Hydrophobia ..	1	5	9
Cholera ..	..	4	..
Diphtheria ..	..	11	36
Measles ..	5	3	6
Cerebro-spinal meningitis ..	2	1	..
Encephalitis-letargica ..	2	2	..
Erysipelas ..	17	..	20
Tetanus ..	60	73	87

Training of medical students.—Students as detailed below received clinical instructions in the various departments of the Hospital :—

	Men.	Women.
<i>Final year—</i>		
Military ..	23	..
Civil—Men ..	164	..
Women ..	..	14
<i>Fourth year—</i>		
Military ..	11	..
Civil—Men ..	83	..
Women ..	..	12
<i>Third year—</i>		
Military ..	7	..
Civil—Men ..	80	..
Women ..	..	16
Total ..	368	42
Grand Total ..	410	

Statement of expenditure incurred in the General Hospital Buildings during the calendar year 1936.

I. Buildings.

	Rs.
1 Remodelling General Hospital ..	1,66,190
2 Other original works ..	1,714
3 T.V. Repairs ..	11,964
Total ..	1,79,868

The following statement shows receipts and expenditure during the past five years ending with 1936 :—

	1932.	1933.	1934.	1935.	1936.
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts	6,77,237	6,87,672	10,41,631	10,31,018	9,76,528
Expenditure—					
Salaries (Medical Officers) ..	60,338	60,742	61,122	67,804	75,724
Salaries (nurses) ..	1,36,899	1,35,543	1,42,572	1,50,856	1,57,176
Salaries (inferior servants) ..	78,890	80,551	85,468	86,801	91,664
Medicines (Europe) ..	73,359	76,927	79,081	1,41,998	1,62,291
Diet ..	1,01,021	1,04,625	1,05,744	1,06,889	1,13,640
Apparatus, repairs and renewals ..	..	..	..	16,010	15,239
New buildings, additions to apparatus ..	..	..	3,39,775	2,74,744	1,91,439
Repairs to buildings ..	45,203	24,313	20,178	33,186	15,945
Miscellaneous charges ..	1,81,527	2,04,971	2,07,691	1,52,730	1,53,410
Average daily sick ..	585.41	613.49	654.43	697.77	732.31

Income.—The main source of revenue of the Hospital is as follows :—

- (1) *Hospital stoppage recovered from paying patients.*—The recoveries effected from such of the in-patients as are liable to pay hospital stoppages as per instructions conveyed in G.O. No. 2337, P.H., dated 6th October 1934, are noted below :—

The amounts collected during the past three years are—

	1934.	1935.	1936.
	Rs.	Rs.	Rs.
Special wards—A class ..	27,419	30,119	18,884
Do. B class ..	8,385	10,856	13,144
European—General ..	9,308	8,375	7,429
Indian—General ..	3,676	3,390	3,367

- (2) *Sale-proceeds of unserviceable articles, empty packing cases and tins.* The amount collected during the past three years are—

Year.	Amount.
	Rs. A. P.
1934	318 2 0
1935	687 12 0
1936	749 2 0

Finance.—The following statement shows receipts and expenditure during the year 1936 :—

	Rs.
Government grant	9,01,948
Municipal contributions	20,000
Fees and contributions from patients	46,145
Fees for X-Ray examination and treatment including fees for Radium treatment	3,533
Miscellaneous	4,674
Total	9,76,300

II. Electrical Works.

	RS. A. P.
1 Original works—Major—Remodelling Scheme	23,480 0 0
2 Original works—Minor	55 0 0
3 Repairs	3,981 0 0
Total	27,516 0 0

Expenditure.

Salaries (Medical Officers) ..	75,724
Salaries (nurses) ..	1,57,176
Salaries (inferior servants) ..	91,664
Medicines ..	1,62,291
Diet ..	1,13,640
Apparatus, repairs and renewals ..	15,239
New buildings, additions to apparatus ..	1,91,439
Miscellaneous charges ..	1,53,182
Repairs to buildings ..	15,945

Supplies—Medicines and surgical equipment.—The medical stores required during the year 1936 were obtained from the Medical Store Depot, Madras. Special medicines and instruments were obtained on Home indents and urgent requirements by local purchase as usual.

	RS. A. P.
Annual indent for 1936-37 ..	44,057 5 4

	£ s. d.
Amount of Home indent for 1936 ..	1,142 17 10

	RS. A. P.
Amount of medicines, etc., purchased locally	61,403 3 9

Water-supply.—The following statement shows the expenditure and cost of water during the past five years :—

Year.	Expenditure.	Cost.
	GALS.	RS. A. P.
1932	24,248,414	28,271 4 0
1933	21,004,950	26,260 0 0
1934	25,333,000	28,782 8 0
1935	24,992,950	31,241 4 0
1936	23,623,115	26,503 4 0

Verification.—The verification of all stores, furniture, etc., was conducted as usual on the 31st March 1936, by a Committee of Medical Officers and by the Second Assistant Steward on the 30th September 1936.

The stock of stationery and linen were examined quarterly by the Resident Medical Officer and the Matron Superintendent, respectively.

The service books of both the superior and inferior permanent establishment were verified up to 31st December 1936.

Honorary Medical Officers.—The strength of the Honorary Medical staff was increased by one Honorary Anaesthetist (G.O. Ms. No. 1423, P.H., dated 29th August 1936) and one Honorary Clinical Assistant and one Honorary Woman Clinical Assistant for the out-patient department (G.Os. Ms. No. 1818, Edn. and P.H., dated 3rd October 1936 and Ms. No. 1478, P.H., dated 3rd September 1936).

General.—Lieut.-Col. H. G. Dyer, R.A.S.C. (Retd.), Lay Secretary for the City State Hospitals, Madras, resigned his appointment from 14th March 1936 afternoon.

The appointment of a Lay Secretary for the Government General Hospital, for a period of two years, in the first instance, was sanctioned in G.O. Ms. No. 1751, P.H., dated 28th September 1936. Lieut.-Col. H. G. Dyer, R.A.S.C. (Retd.), was appointed to the post and took charge of the appointment from 10th December 1936.

Advisory Committee.—Mrs. Madhavan Nair and Lady Venkatasubba Rao were appointed as Lady members of the committee in G.Os. No. 2216, P.H., dated 16th November 1936 and No. 889, Edn. and P.H., dated 7th April 1937, respectively. The Honourable Diwan Bahadur G. Narayanaswami Chetti Garu, C.I.E., and Khan Bahadur B. Mohiuddin Khan Lodi Sahib Bahadur were renominated as members for a further term of three years in G.O. Ms. No. 889, Edn. and P.H., dated 7th April 1937.

A deputation consisting of three members of the committee waited on the Government to bring to their attention the inadequacy of the nursing staff of this hospital and the need to provide more quarters for them. A proposal for increasing the strength of the nursing staff steadily during the next five years has been put up to the Surgeon-General and the question of providing additional quarters for nurses is engaging the attention of Government.

Building.—The new Isolation Block and the new Venereal Block were brought into use during the year. The old Hobart ward in the main building converted into special wards for paying patients—"A" class—was handed over by the Public Works Department. The special wards for paying patients "B" class were temporarily removed into these wards pending the completion of the permanent "B" class wards on the ground floor.

The scheme for the supply of well-water for laundry purposes is still pending with the Public Works Department for completion of the water-softening plant.

Mechanical staff.—The appointments of electrical supervisor and mechanic and shift-chargeman sanctioned for the general supervision of the machinery plants were filled in from 1st August 1936.

The electrical staff previously under the control of the Electrical Engineer (General), Public Works Department was also transferred to this hospital from 1st September 1936.

Inferior staff.—The staff of servants sanctioned for the hospital especially of lascars and female totis is quite inadequate for the needs of the hospital. The fixing of the strength of certain class of servants on a scale in proportion to the number of beds in the hospital cannot well be applied to the General Hospital which is the premier teaching institution in the Presidency where the duties of the servants are much more varied and numerous in detail. The extent of the buildings and the details of the duties to be carried out should be the main criterion. In the General Hospital a further special consideration is the large number of casualties and serious cases admitted and treated in the hospital and the existence of special wards for paying patients.

The necessity for the creation of two appointments of guides for out-patients was fully set forth and put up as a Part II Scheme year after year from 1934. The proposal which is a matter of necessity and urgency has not been favourably considered by Government.

The lascars in the hospital work more than 12 hours a day; for all practical purposes, they are whole-time servants. The majority have put in several years of continuous service in the hospital; yet, they are classed as menials paid from contingencies and are denied the privileges of pension gratuity or bonus. These servants though drawing only Rs. 15 a month, have, if living outside Government quarters to pay Rs. 2-8-0 and Rs. 3 per month for rent and if living in Government quarters annas 8 per month for rent and in addition pay their own water and electric light bills. This is very hard on them and something should be done to better their lot; they should have something to look forward to at the end of their service. Their case deserves sympathetic consideration.

Social service work.—The National Health Association of Southern India arranged for a few cinema shows and magic lantern lectures for the benefit of the patients during the first few months of the year. Books and periodicals were regularly received every month from the Guild of Service Book Dump. Flowers were sent by Mrs. A. J. King and Mrs. Batchelor every week. Mrs. Hugh Fraser, Mrs. Eliphick and Mrs. Birley brought and distributed books and magazines to patients regularly during the year, and occasionally gramophones were played in certain wards by the social workers belonging to the Guild of Service.

M. M. CRUICKSHANK, Lieut.-Col., I.M.S.,
Superintendent.

PART II.

NURSING DEPARTMENT—REPORT FOR 1936.

Staff.—Miss G. H. Gadsden, Matron Superintendent, who was on sick leave from 25th January 1935 retired from service on invalid pension with effect from 6th February 1936. Miss King continued to act as Matron Superintendent and Miss McReddie as Assistant Matron.

Miss M. C. Bosen was confirmed as Sister with effect from 1st January 1936 in the vacancy caused by the retirement of Sister Browne from service.

Sister H. L. Mason was on sick leave from 18th January 1936 to 18th November 1936, when she retired on invalid pension. Miss H. John was posted as acting Sister in the vacancy.

Sister F. Cuxton was transferred to the Headquarters Hospital, Coimbatore, on 23rd May 1936 and Miss S. Ramammal was posted in her place as acting Sister.

Sister Goudie was granted leave out of India for ten months from 1st July 1936 and Miss A. Alamelu was posted as acting Sister in the leave vacancy.

With the opening of the new surgical block in February 1936, the following additional nursing staff were sanctioned :—

- One Sister.
- Four staff nurses.
- Twelve pupil nurses.

The system by which staff nurses from this hospital were deputed for leave vacancies in three non-training institutions in the city as ordered in G.O. No. 1116, P.H., dated 26th April 1934, was worked for more than a year but was found to be very unsatisfactory. As a result of representation made, Government were pleased to cancel the arrangement and ordered that leave vacancies arising in those institutions should be filled by the Surgeon-General by posting substitutes in each case. This order came into force from 1st September 1936. As a result of this order, the extra leave reserve of two pupil nurses sanctioned for the purpose were withdrawn.

In G.O. No. 2451, P.H., dated 10th December 1936, Government sanctioned the continuance of the temporary posts of two male nurses attached to the Venereal Department for a further period of one year from 1st December 1936, subject to the conditions mentioned in G.O. No. 1857, P.H., dated 22nd July 1935.

Government also sanctioned in G.O. No. 2597, P.H., dated 5th October 1935, the continuance for a period of one year of the temporary post of Assistant House-keeper for the Nurses' quarters sanctioned in G.O. No. 759, P.H., dated 1st April 1935, and again

for a further period of one year in G.O. Ms. No. 1633, P.H., dated 17th September 1936. The appointment as now sanctioned will continue till 1st May 1938.

Resignations—			
To get married ..	..	..	4
To better prospects ..	..	..	2
Private affairs ..	..	..	1
Total ..	..	..	7

The inadequacy of the nursing staff in the General Hospital was discussed by the Advisory Committee of the hospital at one of its meetings held during the year and proposals were sent to the Surgeon-General for increasing the staff gradually. A deputation consisting of the President, and two members of the Advisory Committee also waited on the Secretary to Government and represented the matter.

Training School for nurses.—With effect from 1st July 1936, pupil nurses after passing the first part of the Examination in General Sick Nursing were deputed to the Government Hospital for Women and Children for a period of three months in batches of six to undergo training in Gynaecology.

Thirty-two pupil nurses appeared for the final qualifying examination in General Sick Nursing with the following results :—

Examination held in	Number appeared.	Number passed.
June 1936	19	16
December 1936	13	8
Total	32	24

Out of the 24 nurses that passed, one had already passed in Midwifery before taking up General Training, so that only 23 nurses were sent for Midwifery Training, 20 to the Women and Children Hospital, Egmore, Madras, and three to the Victoria Caste and Gosha Hospital, Triplicane. During the year, four nurses pupils were discharged from the Training School, for failure in the Preliminary Examination held three months after their entertainment and one nurse was discharged on account of unsatisfactory work.

One private pupil nurse was transferred to this hospital on 1st July 1936, from the Victoria Caste and Gosha Hospital, Madras, for completion of training and she was permitted to reside in the quarters as a special case under orders from the Surgeon-General.

Invalid cookery.—Class in invalid cookery for the second year pupils were started in July 1936 and six classes were held during the year.

E. KING,
Acting Matron Superintendent.

PART III.

PROFESSIONAL AND SCIENTIFIC REPORTS OF PHYSICIANS AND SURGEONS.

REPORT OF DR. M. R. GURUSWAMI MUDALIYAR FOR 1936.

During the year under report there were admitted into my wards alone 29 cases of rheumatic carditis. Of these one was an undoubted case of pure aortic stenosis, four of mixed aortic lesion and the rest involved the mitral valve with or without auricular fibrillation. Nearly a dozen cases were disposed of in out-patients by my assistant.

Diagnosis depended on history, age, valvular lesions and radiological signs in almost all the cases; and also on the absence of any other ætiological factor. Subcutaneous nodules were not seen in any case. History of sore throat and evidence of tonsillar infection could not be very well relied upon because of their universality. It is proposed in future to have tonsil puncture done in all heart cases. The newly built-up immunological evidence has not been explored in any of these cases—such as agglutinin bodies, streptolysins, etc.

Another interesting group of diseases that one could collect were cases of macrocytic anæmia. These numbered 39 in the year 1936 in my wards. It is a vexed question, the etiological classification of these anæmias. Nothing is more fallacious than to label them as pernicious anæmia on the strength of the peripheral blood film examination. Only two of them were accompanied by characteristic nervous symptoms. Some of them were associated with hookworm infection, one at least improved very well with iron after anthelmintic treatment. In some of them the blood picture was part of a sprue syndrome of varying degree. Some were manifestations of a chronic glossitis-achlorhydria-chronic diarrhoea syndrome without the blood and stool chemistry of sprue. Some were of undetermined origin. In the great majority of them reticulocyte response to liver therapy was not striking, but there was in most of them a slow and steady increase in blood count. This feature has been noted by Napier too. As noted by Napier (Lancet: 1936, 11, 679) the van den Bergh indirect reaction was not of great value in differentiating these pernicious anæmia-like macrocytic anæmias from addisonian pernicious anæmia.

Injection of liver extract has been the routine treatment of these macrocytic anæmias. Following Castle and his co-workers' report on 100 cases of severe sprue in Porto Rico (Arch. Int. Med., 1935, lvi, 667), I have not very much insisted on dietetic restrictions and have had good results. One great advantage of injection of liver extract is that it reduces the period of stay in hospital and saves in dieting cost and enables a quicker turnover in a chronically overcrowded ward.

I had the opportunity of trying a number of new liver products, samples of which were kindly placed at my disposal. I have used them in comparison with a standard of recognized potency by the single and double reticulocyte methods. Except in one or two cases the reticulocyte response was not striking enough for one to come to any definite conclusion on the comparative merits of these concentrated products.

It would be interesting to collect and classify the cases of macrocytic anæmias treated in one's wards recently. One great handicap is the want of facilities for adequate pathological report and day-to-day control. It is physically impossible for a part time clinical pathologist, that we have now, to do the routine skilled work and to meet the calls of the modern diagnostic, prognostic and therapeutic criteria in anæmias. We have always suffered from the additional difficulty of following up our patients on discharge.

A few cases of nutritional iron deficiency anæmias in children simulating nephritis were seen. The patients responded very well to iron.

Four cases of paratyphoid "A" fever were treated in my wards during the year. One died of hæmorrhage. This case is reported in the Madras Medical Journal (1937, January). B. Paratyphosus A was isolated from the blood in these cases. For several years before 1936 not more than one or two cases were detected in the whole hospital; in 1936 alone presumably 12.

Two cases of infective endocarditis were admitted and died. One was due to a hæmolytic staphylococcus which was also grown from the urine. This case has been reported on in the Madras Medical Journal (1936, xvi, April, 40). The other was due to streptococcus anginosus superimposed on a patent interventricular septum.

The Haverro Trading Company placed with me a few samples of a new preparation of Bayer's, containing trivalent arsenic and bismuth, as effective against amœbic infection. Six cases have been tried, including three in January 1937. The first three cases looked very promising, as the amœbie were not seen after the first day. One of them was in fact effective after emetine injections failed. The last three cases however were a total failure, as I was forced to give emetine later. The course I followed was to give one tablet of the Preparat three times daily for five days.

The absence of a side room laboratory attached to each ward has been a very great handicap to quick and effective routine bedside examination of pathological body fluids.

Great credit is due to the ungrudging work done by my assistants in carrying out these investigations in addition to their routine work.

M. R. GURUSWAMI,
Physician.

REPORT OF CAPTAIN R. L. HAVILAND MINCHIN, I.M.S.

During the past year, investigations have been carried out on all cases of Epilepsy admitted and it has been found that Hypoglycaemic type of blood sugar curve is obtained in a proportion of cases. A case of diabetes associated with epilepsy died in the wards during the year and post-mortem examination showed that the fits were due to an infestation of the brain with *Cysticercus Cellulosæ*. This appears to be the first case of this condition as a cause of fits reported in India.

A case of Hydatid cyst of the liver was admitted. This case showed neither eosinophilia nor the characteristic thrill, the condition being diagnosed mainly by negative evidence and the history of service in Mesopotamia during the Great War. The case was operated on by Dr. N. Mangesh Rao and the fluid obtained from the cyst is kept in the Bacteriological Department and is available for precipitation tests in cases of suspected hydatid disease.

Two cases of Splenomegalic eosinophilia were investigated in the wards during the year, no cause for the condition could be discovered and both cases are still under observation.

A number of cases of Avitaminosis have been seen in the Out-Patient Department and

in the wards. These appear to be due to a general deficiency of all components of the vitamin A and B complex. The minor lesions all cleared rapidly with Yeast and Cod Liver Oil. Samples of Messrs. Beyer's preparation 'Vogan' have been tried and found to be very satisfactory.

A remarkably large number of cases with symptoms resembling Disseminated Sclerosis have been seen and it is possible that these cases may be related to Lathyrism or to a Vitamin A deficiency, but the matter has not been investigated properly as yet.

A case of Rheumatic Sino-Auricular-Heart-Block was seen and has been reported locally by Dr. Govinda Reddi.

Clinical trials of two cases of septic ulcer, with Histidine gave rapid symptomatic improvement, but the hyperacidity persisted.

One case of culture positive Streptococcal Septicæmia was treated with samples of *Prontosil* (Bayer) supplied by the manufacturers, and clinical improvement and negative blood culture were obtained.

No cases of Tabes have been seen in the wards or Neurological clinic this year. But three cases of Erb's Syphilitic Paraplegia have been under treatment.

R. L. HAVILAND MINCHIN, CAPT., I.M.S.,
Physician.

REPORT OF DR. T. SATAKOPAN, M.D., HONORARY PHYSICIAN.

[HONORARY ASSISTANT PHYSICIAN DR. J. A. S. MASILAMANI M.B.B.S.]

Honorary Assistant Physician Dr. M. Seetharama Rao continued to be on leave till about the middle of June, when he rejoined duty. He resigned his post in December to take up a temporary commission in the I.M.S. Dr. T. K. Sundaram, M.B., B.S., was temporarily posted to my unit from February to June this year.

The Indian Male Medical ward (Niblock Ward) under my charge continued to be very crowded. This ward seems to be particularly unsuited to take extra patients on the floor. There was a large number of cases of Typhoid fever and Pneumonia throughout the year.

There was no marked seasonal variation in the incidence of these diseases. There were two cases of Epidemic Encephalitis in my wards. They were two Anglo-Indian brothers aged 5 and 7 years. The younger had the disease first. It started with definite symptoms and signs of Lobar Pneumonia with high fever and very marked meningeal symptoms. Examination of the cerebrospinal fluid suggested the probability of encephalitis. At this stage the elder boy was admitted with fever. Neurological signs were manifest on the third day. This settled the diagnosis of the earlier case. These two boys were discharged well. They continue to be under observation.

Gastro-Enterological clinic.

This clinic is held every Friday of the week in the Out-Patient Block. The work commences at 10 a.m. and often goes on to 2 p.m. Often times as many as 20 patients present themselves for advice on a single day, in addition to the old cases. A fair number of these are asked to come again on subsequent days of the week. In fact this department may be said to work throughout the week, though officially only one day in the week is set apart for the work. The number of patients who attended this clinic in the year was 433. Of these 270 were investigated fairly completely. The rest of them could not be thus investigated either because they were very casual in their attendance or they had primarily to be attended to in other departments. Of these 270 cases, 55 had no recognizable disease.

An analysis of the remaining 215 cases according to the diagnosis is shown below:—

Chronic Peptic ulcer	82
Dueodenal ulcer with chronic appendicitis	13
Duodenal ulcer with Pyloric Stenosis.	37
Malignant disease of stomach ..	6
Hyperechlor-hydræ	10
Chronic Gastritis	5
Gastric Neurosis	13
Chronic Appendicitis	27
Tuberculous Cæcum	10
Tuberculous Peritonitis and Enteritis.	10
Cirrhus of Liver	2
Amoebic Hepatitis	2
Colitis	7
Lead Colic	1
Cases with other than Gastro-Enterological trouble	40

T. SATAKOPAN, M.D.,
Honorary Physician.

REPORT OF DR. P. S. VARADARAJAN, M.D. (MADRAS), M.R.C.P. (LONDON), HONORARY PHYSICIAN.

[DR. N. NATESAN, L.M.S., ASSISTANT PHYSICIAN]

(For a short period early in the year Dr. T. K. Sundaram, M.B.B.S., worked under me as Honorary Assistant Physician).

A small group of five cases of Hæmetemesis the result of acute peptic ulcers were treated with stomach washing with ice cold water and leaving behind one dram of L. 1,000 adrenaline. The results have been uniformly successful.

Another group of cases where generalized bleeding has been thought to be the result of disfunction of the liver as a result of prolonged bacterial infection (defect being considered to lie in the direction of diminished production of fibrin or heparin) the arrest of the bleeding has been very dramatic.

Two cases of sub-acute Bacterial endocarditis within a short period of each other were admitted into our wards. Both the cases were sub-acute Bacterial Endocarditis, and the positive blood culture was obtained very early.

From the therapeutic point of view deep X-Ray Therapy was responsible for complete disappearance of symptoms in a case of cerebral tumour. (The case was alive and well till two months ago. Unfortunately we have had no news of the patient for the last two months).

P. S. VARADARAJAN, M.D. (MADRAS), M.R.C.P. (LONDON),
Honorary Physician.

REPORT OF THE EAR, NOSE AND THROAT DEPARTMENT.

Attendance of patients during the year—

Total number of patients seen during the year	40,683
Total number of new patients seen during the year	19,999

Attendance of patients during the year—cont.

Total number of old patients seen during the year	20,684
Daily average of old patients seen. Do. new patients seen.	66.5 64

P. V. CHERIYAN,
Ear, Nose and Throat Surgeon.

REPORT OF THE DENTAL DEPARTMENT.

There is again an increase in the number of patients this year.

The early attention to children's teeth is of the utmost importance; hence it should be impressed on school authorities to make children undergo periodical Dental inspection.

Tricresol formalin is used for treating pocket in gums; it is very successful in early stages but unfortunately most of the patients seek recourse to treatment in fairly advanced condition. This treatment is also very beneficial in diseases of gums which is the commonest source of infection in a large number of patients.

J. B. CHENOY, L.D.S., R.C.S. (ENG.),
Dental Surgeon.

REPORT OF THE VENEREAL DEPARTMENT.

Medical Officer.

Dr. R. V. Rajam, M.B. M.S. (Mad.), M.R.C.P. (Edin.)

Assistant Surgeon.

Dr. N. Rajamanickam, M.B.B.S.

Woman Assistant Surgeon.

Dr. (Miss) P. Samuel.

Honorary Assistant Surgeon.

Dr. M. Ratnavelu, L.M.S.

The following tabular statement shows the attendance and the work carried out in the department during the year 1936 :—

	Males.	Females.	Children.	Total.
Number of new cases examined and treated during the year.	6,696	1,495	279	8,470
Total attendance during the year.	54,471	12,514 (including children).		66,985
In-patients ..	475	227	42	744
Average daily out-patient attendance.	148.8	34.2 (including children).		183
Number of bloods sent for serological examination				9,211
Number of C.S.F. sent for serological examination				106
Number of smears examined for gonococci				9,251
Number of darkgrounds examined for spirochaeta pallida and trichomano.				3,464
Number of injections given				33,213
Number of operations performed (mostly minor)				453
About 91.3 per cent of the patients were treated as out-patients.				
An analysis of the conditions found during examination reveals the following :—				
<i>Males.</i>				
Sero-negative primary syphilis				50
Sero-positive primary syphilis				230
Secondary syphilis				697

Tertiary syphilis	427
Latent syphilis	186
Neuro-syphilis	79
Congenital syphilis	10
Gonorrhoea	1,389
Syphilis and gonorrhoea	140
Latent syphilis and gonorrhoea	242
Neuro-syphilis and gonorrhoea	4
Chancroids	522
Chancroids and gonorrhoea	55
Lymphogranuloma inguinale	163
Chancroids and lymphogranuloma inguinale	174
Gonorrhoea and lymphogranuloma inguinale	25
Syphilis and lymphogranuloma inguinale	110
Latent syphilis and lymphogranuloma inguinale	27
Genito-ano-rectal syndrome of lymphogranulomatous origin	14
Genito-ano-rectal syndrome of lymphogranulomatous origin with latent syphilis	5
Venereal granuloma	49
Venereal granuloma with syphilis	9
Stricture urethra	66
Stricture rectum	1
Warts penis	49
Warts anus	6
Balanitis	41
Cystitis	6
Herpes genitalis	8
Non-specific urethritis	45
Chronic prostatitis	97
Venereal granuloma and lymphogranuloma Inguinale	1
Phymosis	37
Paraphymosis	20
Yaws	15
Arsenical dermatitis	2
Arsenical encephalitis	1
Urinary fistula	13
Periurethral abscess	3
Latent syphilis and urinary fistula	3
Chancroids, gonorrhoea and lymphogranuloma inguinale	9
Syphilis, gonorrhoea and lymphogranuloma inguinale	16
Syphilis, Chancroids and lymphogranuloma Inguinale	1
Non-venereal	1,628
Total	6,725

GOVERNMENT GENERAL HOSPITAL, MADRAS

<i>Females.</i>				Female children—				Cases.	
Secondary syphilis	144			Vulvo-vaginitis				21	
Tertiary syphilis	94			Gonorrhoeal				16	
Latent syphilis	311			Non-gonorrhoeal				5	
Neuro-syphilis	11								
Congenital syphilis	90			Total				21	
Gonorrhoea	268								
Syphilis and gonorrhoea	76								
Latent syphilis and gonorrhoea	282								
Gonorrhoea and neuro-syphilis	4								
Chancroids	4								
Chancroids and gonorrhoea	1								
Lymphogranuloma inguinale	10								
Syphilis and lymphogranuloma inguinale	4								
Gonorrhoea and lymphogranuloma inguinale	3								
Genito-ano-rectal syndrome of lymphogranulomatous origin	12								
Genito-ano-rectal syndrome of lymphogranulomatous origin with syphilis	7								
Genito-ano-rectal syndrome of lymphogranulomatous origin with gonorrhoea	3								
Vulvo-vaginitis	21								
Tertiary yaws	1								
Trichomanos vaginitis	5								
Non-specific cervicitis	17								
Venereal granuloma	11								
Venereal granuloma with syphilis	21								
Veneral granuloma with gonorrhoea	1								
Latent syphilis, gonorrhoea and lymphogranuloma inguinale	1								
Non-venereal	343								
Total	1,745								

Congenital syphilis, 100 cases :—

Males—41. Females—59.

The incidence according to age period is as follows :—

	Cases.
Under 2 years	59
Between 2 and 5 years	14
Between 5 and 15 years	23
Between 15 and 30 years	4
Total	100

The following table shows the percentages of incidence of the main venereal diseases :—

	Males.	Females.
	PER CENT.	PER CENT.
Syphilis	34.0	60.1
Gonorrhoea	27.9	37.8
Chancroids	11.3	0.3
Lymphogranuloma inguinale	7.8	1.0
Genito-ano-rectal syndrome of lymphogranulomatous origin	0.3	1.2
Venereal granuloma	0.8	2.0

The new venereal block was occupied on the 15th May 1936, and from the statistics it may be seen that the volume of work has considerably increased.

The social status of the women who attended the department during the year 1936 is as follows :—

Married women	1,027
Kept mistresses	194
Open prostitutes	93
Clandestine prostitutes	122

Of the cases of syphilis and gonorrhoea who attended the department during the year 1936, there were 164 cases of syphilis and 133 cases of gonorrhoea which were not fresh cases but cases of relapse as the result of partial or imperfect treatment.

Four male doctors and two lady doctors were trained in venereal diseases during the year. Sixteen seamen were given ambulatory treatment in the clinic. Eighty-two dark-ground examinations for Spirochaeta Pallida were carried out on British soldiers sent from the local British Military Hospital.

R. V. RAJAM, M.B., M.S. (Mad.), M.R.C.P. (Edin.),
Venereal Specialist.

DERMATOLOGICAL DEPARTMENT.

Dermatologist.

Dr. S. Thambiah, M.C., M.R.C.P., D.T.M. & H.,
F.D.S.

Honorary Assistant Surgeon.

Dr. S. Rajagopal, L.M.S.

The number of Out-patients and in-patients has shown a considerable increase, the former included cases referred to from other city hospitals for diagnosis and outline of treatment.

Well over 1,300 new patients suffering from leprosy were seen in the department during the year under report. Routine treatment by Creosoted Hydnocarpus oil and alepol 3 per cent aqueous solution autoclaved were adopted. Resistant infective cases were treated by intravenous injection methylene blue 1 in 1,000, 5 to 10 c.c. once a week. When excretion by the kidney was poor, a general bluish tinge of the entire skin surface including toe and finger nails were noticed. Intravenous injection of Cylotropine (Shering)

5 c.c. twice a week accelerated the excretion of methylene blue. No reactionary temperature was noticed in any one of the cases in the series. Weak yatrein-casein and omnadin (Bayer) were used to produce protein shock in debilitated and non-progressive cutaneous cases.

Redoxon (Roche) and Canton (Bayer) ascorbutic acid preparations and also extract Sarsae Liquidum were given a trial in Psoriaties after they became free from scaly lesions to ward off relapse. It is too early to draw

any conclusion and these preparations are given an extended trial. Dermatomycol a polyvalent fungus lysate in graduated doses is also under trial in bad cases of fungus infection. Calcium Bronate Sandoz is a better sedative than calcium gluconate preparations in weeping eczemas. Satisfactory results in pyodermic cases were obtained by injecting glaxo dissolved vaccine—vaccine obtained by dissolving staphy and strepto culture in sodium lauryl sulphate in order to get a solution without loss of potency and also to detoxicate.

S. THAMBIAN,
Dermatologist.

THE PATHOLOGY DEPARTMENT.

Six thousand, nine hundred and fifty-three specimens were examined for the General Hospital, Madras, during the year 1936 out of which 5,824 were done in Clinical Laboratory, General Hospital, and 1,129 in the Department of Pathology, Medical College, Madras. The latter are classified as follows:—

List of post-mortem examinations on Medico-legal cases from the General Hospital, Madras, during the year 1936.

Multiple injuries	1
Concussion brain	1
Burns	2

Total .. 4

Total of non-medico-legal post-mortems .. 66

Total of medico-legal post-mortems .. 4

Grand total .. 70

Total number of post-mortem examinations held during the year 1936 were 66. The causes of death are classified as follows:—

Brain—	
Traumatic subdural hæmorrhage	1
Cysticercosis	1
Cerebral Abscess	1
Pneumococcal meningitis	1
Tumour brain	4

Heart—	
Mitral stenosis	1
Myocarditis	1
Sub acute bacterial endocarditis	2

Kidneys—	
Chronic nephritis	1
Suppurative nephritis	1
Renal failure	1

Liver—	
Cirrhosis	1

Lungs—	
Tuberculosis	6
Hypostatic pneumonia	1
Lobar pneumonia	8
Broncho pneumonia	2
Empyema	2
Oedema	1

Asphyxia—	
F.B. Trachea	1
Oedema glottis	1
Laryngismus stridulus	1

Spleen—	
Cyst	1
Pancreas—	
Cancer	1

Stomach	
Cancer	1
Perforating gastric ulcer	1

Intestines—	
Perforated duodenal ulcer	1
Typhoid	1
Amoebic dysentery	1
Bacillary dysentery	1
Ulcerative colitis	2
Tuberculous enteritis	1
Strangulated hernia	1

Hæmopoietic—	
Anæmia—	
Macrocytic	1
Secondary	3
Myeloid Leukæmia	1

Tumours—	
Cancer cheek	1
Buttock	1
Retro-peritoneal sarcoma	1

Miscellaneous—	
Acidosis	2
Malnutrition	2
Hydrophobia	1
Subphrenic abscess	1
Fracture pelvis	1

T. S. TIRUMURTI,
Professor of Pathology.

REPORT OF THE BACTERIOLOGY DEPARTMENT.

The total number of specimens examined during the year under report amounts to 6,270 as against 5,173 in 1935.

Table 1 gives the number and nature of clinical examinations dealt with during the year:—

Table.

Description.	Number examined.	Number positive.
Blood for agglutination tests—		
Typhoid group	1,490	* 722
B. Proteus X 19	24	..
B. Proteus Kingsbury strain	24	..
Micrococcus Melitensis	11	..
Micrococcus Para Melitensis	11	..
B. Abortus	11	..
B. Dysentery Flexner	11	..
B. Dysentery Shiga	11	..
B. Coli Communis	8	..
B. Fækalis Alkaligenes	8	..
Vibrio Cholera	1	..
Total	1,610	722
Throat swab for Diphtheria (for carriers)	147	..
Sputum for Tubercle Bacilli	49	2
Pus for Tubercle Bacilli	1	1
Cell Count	302	..
Total	2,109	725

* Of which 5 Pos. for A; 3 Pos. for B.; 1 Pos. for C.

The total number of agglutination tests done during the year amounts to 1,610 as against 1,166 for 1935 and the percentage of positive findings for Enteric group works up to 48.5 as against 57 in the previous year.

Table 2 gives details of cultural examinations done during the period under report:—

Description.	Number examined.	Number positive.	Remarks.
Cultures—			
Blood culture for enteric group	1,077	178	166 B. Typhosus. 12 B. Para Typhosus A.
Blood culture for other organisms	56	9	8 Streptococcus-4 H & 4 N.H. 1 Staphylococcus-H.
Fæces	688	103	27 B. Dys. Flexner. 7 B. Dys. Shiga. 13 B. Typhosus. 27 B. Para colon group. 17 B. Asiaticus. 9 B. Morgan. 3 Enterococcus.
Urine	768	190	105 B. Coll. 26 B. Typhosus. 36 Staphylococcus. 10 B. Pyocyaneus. 9 B. Para colon group. 2 B. Morgan. 1 B. Asiaticus. 1 B. Fækalis Alkaligenes.
Pus	276	237	164 Staphylococcus. 62 Streptococcus. 7 Staph. and Strepto. 3 B. Pyocyaneus. 1 Gonococcus.
Sputum	117	117	51 Strepto and Catarhalis. 47 Streptococcus. 16 Strepto and Pneumo. 2 Strepto. Cat. and Pneumo. 1 Monilia.
Tonsil Puncture	6	6	Streptococcus.
Throat swab (ordinary)	47	47	Streptococcus.
Throat swab for diphtheria	290	70	70-B. Diphtheria.
Nasal swab	12	12	Streptococcus.
Muscle tissue (P.M. case for Tetanus)	1	1	B. Tetanus.

Description.	Number examined.	Number positive.	Remarks.
Pathological Fluids—			
Pleuritic fluid	47	9	Pneumococcus.
Synovial fluid	12	2	Streptococcus.
Peritoneal fluid	37	1	Pneumococcus.
Cerebrospinal fluid	118	1	Staphylococcus.
Bile	9	3	1 B. Coll. and 1 B. Strepto.
Cystic fluid	2	..	1 B. Asiaticus.
Antrum fluid	12	2	1 Strepto and 1 Staph.
Total	3,574	987	

During the year under report there has been an increase in the total number of blood cultures done for enteric group of organisms with a greater percentage of positive findings which works up to 16.5 per cent as against 8.5 per cent in the previous year. Another feature of the enteric infections of this year has been the greater incidence of Para Typhoid A. (B. Para Typhoid A being isolated from blood culture in 12 cases).

Streptococcus were isolated from blood culture in 8 cases; of which, 4 were cases of Bacterial endocarditis, 3 of post-operative septicæmia after radical Mastoid operation and one of Pyæmia.

Of the four cases of bacterial endocarditis in which streptococci were isolated from blood culture, 3 gave a typical history of Rheumatic disease in early life, and were admitted in General Hospital, as subacute bacterial endocarditis with temperature ranging between 101° to 103°; in these cases non-hæmolytic streptococci were isolated.

S. Salivarius	1
S. Mitis	1
S. Ignavus	1

Hæmolytic streptococci (S. Anginosus) were isolated from the blood culture in a case of 'infective endocarditis super imposed on congenital Heart disease' in a boy of 20 years admitted in the hospital in a semi-conscious state with a temperature ranging between 103° and 105°.

Of the 3 cases of the Post-operative Septicæmia in which Streptococci were isolated, one of the strains was Non-hæmolytic (S. Mitis) and the other two were Hæmolytic Strepto (S. Anginosus and S. Subacidus).

In the case of Pyæmia, S. Hæmolyticus (S. Subacidus) was isolated from the blood culture.

Staphylococcus (Hæmolytic type) was isolated from blood culture in a case of Malignant endocarditis, admitted in the hospital in a semi-conscious and cyanosed condition with temperature 105°, and passing blood in urine. It is interesting to note that the same variety of Staphylococcus was isolated from the urine culture. The patient died in the hospital two days after admission.

There was a sudden epidemic of diphtheria in this city last year during the three months July to September. During this period 98 throat swabs were examined here for diphtheria, of which 26 turned out to be positive. The various strains of B. diphtheria isolated in a pure condition from these positive cases were subjected to virulence and bio-chemical tests in this laboratory. They were all found to be virulent for Guinea Pigs and fermented glucose and maltose with production of acid only. A summary of our findings has been published in the October (1936) issue of the Madras Medical Journal.

B. Tetanus was grown anaerobically from muscle tissue, excised from the site of a wound in a Post-mortem case. A Guinea Pig inoculated subcutaneously with an emulsion of the culture, showed signs of Tetanus spasms and finally died.

Staphylococcus was isolated from the Cerebrospinal fluid in a case of septic meningitis.

In one case, Monilia was seen in smears and grown in cultures from sputum.

Pneumococcus was grown in 9 specimens of pleuritic fluid and in one specimen of peritoneal fluid.

Table 3 gives a list of the various types of Autogenous vaccines classified according to the nature of the organisms in each case.

Autogenous vaccines—		
Staphylococcus	150	
Streptococcus	102	
Strepto and Staphylo ..	19	
Strepto and M. Catarrhalis ..	51	
Strepto and Pneumo	13	
Strepto, Pneumo and M. Catarrhalis	3	

Pneumococcus	4
Gonococcus	1
B. Coli	35
B. Dysentery Flexner	8
B. Dysentery Shiga	4
B. Paracolon Group	9
B. Asiaticus	6
B. Morgan	2
B. Pyocyaneus	5
B. Faekalis Alkaligenes	1

Total .. 413

Table 4 gives a list of the nature of material injected into Guinea Pigs for diagnostic purposes.

Material.	Number inoculated.	Number positive.
A. For evidence of Tubercle—		
Urine	43	2
Peritoneal fluid	28	..
Pleuritic fluid	28	..
Cerebrospinal fluid	24	2
Pus	18	5
Motions	6	..
Gland tissues	5	..
Joint fluid	4	..
Sputum	3	..
Total	157	9
B. For evidence of Leptospira—		
Blood	3	..
Urine	6	..
C. For evidence of Spirillum Minus—		
Blood	6	..
Urine	2	..
Total	174	9

One hundred and fifty-seven specimens were inoculated for detecting evidence of tubercle with 9 positive findings—Tubercle Bacilli being recovered in all these cases.

S. RAMAKRISHNAN, L.M.S.,
L.R.C.P. & S. (EDIN.), D.T.M. & H. (LOND.),
Professor of Bacteriology.

PART IV. STATISTICS.

STATEMENT A.

Showing the number of civil hospitals and dispensaries during the year.

Population of the Province.

Nil.

STATEMENT B.

Showing the distribution of medical personnel in the Government General Hospital, Madras, during the year 1936.

	State public.	
	Males.	Females.
Indian Medical Service Officers ..	4	..
Women Medical Services (Indian) officers	..	..
Salaried Graduates or Assistant Surgeons	* 19	1
Salaried Licentiates or Sub-Assistant Surgeons	† 3	..
Honorary Graduates or Assistant Surgeons	‡ 17	1
Honorary Licentiates or Sub-Assistant Surgeons	2	..
Nurses—		
(a) Europeans and Anglo-Indians	..	102
(b) Indians	2	53
Midwives	..	..
Dhais	..	..
Compounders	12	..

* Four Civil Surgeons plus fifteen Civil Assistant Surgeons (Men).
† Includes the appointment of Dental Surgeon (L.D.S.) one.
‡ Excludes house surgeons and physicians—Resident 15 and non-resident 17.

STATEMENT C.

Showing the number of in-door and out-door patients treated in the Government General Hospital, Madras, during the year 1936.

	Indians.	Europeans.	Total.
In-door patients—			
Total treated during the year—			
Men	10,337	1,288	11,625
Women	2,519	777	3,296
Children	1,771	201	1,972
Total	14,627	2,266	16,893
Number cured	6,750	1,334	8,084
Number relieved	4,811	649	5,460
Discharged otherwise	1,940	173	2,113
Died	1,126	110	1,236
Ratio of death per cent to total treated	7.07	4.09	11.16
Number of beds available—			
Men	387	60	* 447
Women	173	58	* 231
Daily average number—			
Men	423.82	59.58	483.40
Women	128.96	42.71	171.67
Children	70.40	6.84	77.24
Total	623.18	109.13	732.31
Out-door patients—			
Number treated—			
Total treated—			
Men	83,484	4,177	87,661
Women	25,185	2,730	27,915
Children	23,985	2,369	26,354
Total	132,654	9,276	141,930

* Out of the total number of beds for Europeans and Indians, viz., 678, there are 58 beds common to both of them.

STATEMENT C—cont.

Showing the number of in-door and out-door patients treated in the Government General Hospital, Madras, during the year 1936—cont.

	Indians.	Europeans.	Total.
Out-door patients—cont.			
Average daily attendance—			
Men	679.62	16.71	696.33
Women	212.92	18.45	231.37
Children	184.33	11.31	195.64
Total	1,076.87	46.47	1,123.34

Total number of patients treated both in-door and out-door. 147,281 11,542 158,823

STATEMENT D.

Showing the diseases, etc., of the in-door and out-door patients treated in the Government General Hospital, Madras, during the year 1936.

	In-patients.	Out-patients.	Total.
Number of beds—			
For males	447	..	447
For females	231	..	231
Number of in-door patients treated—			
Males	11,625	..	11,625
Females	5,268	..	5,268
Number of out-door patients treated—			
Males	..	87,661	87,661
Females	..	54,269	54,269
Cholera—			
Total treated	3	5	8
Deaths	..	..	..
Dengue—			
Total treated	231	475	706
Deaths	4	..	4
Amoebic dysentery—			
Total treated	411	3,462	3,873
Deaths	15	..	15
Bacillary dysentery—			
Total treated	325	3,224	3,549
Deaths	22	..	22
Diarrhoea—			
Total treated	197	522	719
Deaths	18	..	18
Diphtheria—			
Total treated	95	234	329
Deaths	17	..	17
Enteric fever—			
Total treated	517	846	1,363
Deaths	79	..	79
Syphilis including acquired and congenital—			
Total treated	251	4,160	4,411
Deaths	16	..	16
Gonococcal infections—			
Total treated	152	7,237	7,389
Deaths	9	..	9
Soft chancre—			
Total treated	61	52	113
Deaths	8	..	8

STATEMENT D—cont.

Showing the diseases, etc., of the in-door and out-door patients treated in the Government General Hospital, Madras, during the year 1936—cont.

	In-patients.	Out-patients.	Total number of in-patients and out-patients.
Other diseases of venereal origin—			
Total treated ..	116	1,227	1,343
Deaths ..	8	..	8
Influenza—			
Total treated ..	741	3,168	3,909
Deaths ..	49	..	49
Kala Azar—			
Total treated ..	255	356	611
Deaths ..	5	..	5
Leprosy—			
Total treated ..	9	2,220	2,229
Deaths ..	..	..	..
Malaria—			
Total treated ..	577	2,983	3,560
Deaths ..	27	..	27
Measles—			
Total treated ..	12	14	26
Deaths ..	..	..	..
Meningo-coccal infection—			
Total treated ..	7	7	14
Deaths ..	3	..	3
Mental diseases—			
Total treated ..	..	14	14
Deaths ..	..	..	..
Pneumonia—			
Total treated ..	387	1,342	1,729
Deaths ..	56	..	56
Relapsing fever—			
Total treated ..	..	..	..
Deaths ..	..	..	..
Rheumatic fever—			
Total treated ..	169	322	491
Deaths ..	16	..	16
Sandfly fever—			
Total treated ..	3	46	49
Deaths ..	..	..	..
Small-pox—			
Total treated ..	6	25	31
Deaths ..	..	..	..
Tuberculosis of lung—			
Total treated ..	494	565	1,059
Deaths ..	77	..	77
Other forms of tuberculosis—			
Total treated ..	315	678	993
Deaths ..	39	..	39
Typhus fevers—			
(a) Louse—			
Total treated ..	..	..	..
Deaths ..	..	..	..
(b) Tick—			
Total treated ..	..	..	..
Deaths ..	..	..	..
(c) Unknown vector—			
Total treated ..	..	..	..
Deaths ..	..	..	..
Pyrexia of uncertain origin and other diseases due to infection—			
Total treated ..	325	10,242	10,567
Deaths ..	16	..	16
Ankylostomiasis—			
Total treated ..	212	1,624	1,836
Deaths ..	6	..	6

STATEMENT D—cont.

Showing the diseases, etc., of the in-door and out-door patients treated in the Government General Hospital, Madras, during the year 1936—cont.

	In-patients.	Out-patients.	Total number of in-patients and out-patients.
Guinea-worm disease—			
Total treated ..	21	28	49
Deaths ..	..	..	..
Filaria—			
Total treated ..	97	766	863
Deaths ..	..	..	..
Scabies—			
Total treated ..	134	380	514
Deaths ..	..	..	..
Other diseases due to mitazoan parasites—			
Total treated ..	..	..	..
Deaths ..	..	..	..
Tumours benign—			
Total treated ..	80	..	80
Deaths ..	1	..	1
Tumours malignant—			
(a) Mouth—			
Total treated ..	..	77	77
Deaths ..	..	..	..
(b) Oesophagus and stomach—			
Total treated ..	7	22	29
Deaths ..	1	..	1
(c) Intestines—			
Total treated ..	5	64	69
Deaths ..	3	..	3
(d) Rectum—			
Total treated ..	14	46	60
Deaths ..	4	..	4
(e) Breast—			
Total treated ..	9	39	48
Deaths ..	3	..	3
(f) Uterus—			
Total treated ..	2	..	2
Deaths ..	..	..	..
(g) Penis—			
Total treated ..	11	52	63
Deaths ..	3	..	3
(h) Skin—			
Total treated ..	170	105	275
Deaths ..	13	..	13
(i) Others—			
Total treated ..	260	132	392
Deaths ..	13	..	13
Diseases of nervous system (including Neuro-syphilis)—			
Total treated ..	256	922	1,178
Deaths ..	6	..	6
Ascitis—			
Total treated ..	490	503	993
Deaths ..	35	..	35
Trachoma—			
Total treated ..	..	..	..
Deaths ..	..	..	..
Glaucoma—			
Total treated ..	..	..	..
Deaths ..	..	..	..
Cataract—			
Total treated ..	..	..	..
Deaths ..	..	..	..
Other diseases of the eye—			
Total treated ..	..	..	..
Deaths ..	..	..	..

STATEMENT D—cont.

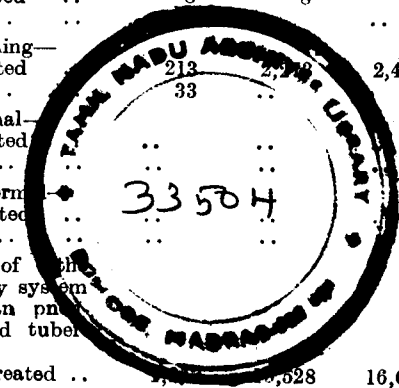
Showing the diseases, etc., of the in-door and out-door patients treated in the Government General Hospital, Madras, during the year 1936—cont.

	In-patients.	Out-patients.	Total number of in-patients and out-patients.
Diseases of the ear—			
Total treated ..	943	7,289	8,232
Deaths ..	21	..	21
Diseases of the nose—			
Total treated ..	491	5,237	5,728
Deaths ..	12	..	12
Diseases of the circulatory system—			
Total treated ..	653	18,652	19,305
Deaths ..	45	..	45
Diseases of blood and spleen—			
Total treated ..	192	325	517
Deaths ..	4	..	4
Inflammation of lymphatic glands and vessels—			
Total treated ..	161	436	597
Deaths ..	4	..	4
Other diseases of the lymphatic system—			
Total treated ..	..	227	227
Deaths ..	..	..	..
Goitre—			
Total treated ..	6	18	24
Deaths ..	..	..	..
Other diseases of the ductless glands—			
Total treated ..	134	9	143
Deaths ..	..	..	..
Diseases of the breast excluding tumours—			
Total treated ..	16	..	16
Deaths ..	..	..	..
Diabetes—			
Total treated ..	53	595	648
Deaths ..	..	..	..
Beri-beri—			
Total treated ..	6	24	30
Deaths ..	1	..	1
Epidemic dropsy—			
Total treated ..	27	89	116
Deaths ..	3	..	3
Osteomalacia—			
Total treated ..	..	282	282
Deaths ..	..	..	..
Rickets—			
Total treated ..	11	58	69
Deaths ..	..	..	..
Scurvy—			
Total treated ..	18	..	18
Deaths ..	..	..	..
Xerophthalmia—			
Total treated ..	..	..	..
Deaths ..	..	..	..
Other diseases due to deficiency or to disorders of nutrition or metabolism—			
Total treated ..	32	74	106
Deaths ..	..	..	..
Hydrocele—			
Total treated ..	326	354	680
Deaths ..	3	..	3

STATEMENT D—cont.

Showing the diseases, etc., of the in-door and out-door patients treated in the Government General Hospital, Madras, during the year 1936—cont.

	In-patients.	Out-patients.	Total number of in-patients and out-patients.
Other diseases of generative system excluding tumours—			
Total treated ..	161	3,224	3,385
Deaths ..	20	..	20
Diseases of bones, joints, muscles, fasciae and bursae—			
Total treated ..	295	1,899	2,194
Deaths ..	4	..	4
Elephantiasis—			
Total treated ..	41	67	108
Deaths ..	..	..	..
Other diseases of areolar tissue—			
Total treated ..	358	2,644	3,002
Deaths ..	31	..	31
Ulcerative inflammation—			
Total treated ..	218	2,876	3,094
Deaths ..	14	..	14
Other diseases of the skin and nails excluding tumours—			
Total treated ..	212	3,355	3,567
Deaths ..	3	..	3
Nephritis—			
Total treated ..	368	1,020	1,388
Deaths ..	46	..	46
Stone in the bladder—			
Total treated ..	68	28	96
Deaths ..	7	..	7
Other diseases of the urinary organs excluding tumours—			
Total treated ..	119	2,122	2,241
Deaths ..	8	..	8
Injuries, general and local—			
Total treated ..	1,491	8,986	10,477
Deaths ..	127	..	127
Opium poisoning—			
Total treated ..	8	8	16
Deaths ..	..	..	..
Other poisoning—			
Total treated ..	213	2,742	2,955
Deaths ..	33	..	33
Labour normal—			
Total treated ..	..	..	..
Deaths ..	..	..	..
Labour abnormal—			
Total treated ..	..	..	..
Deaths ..	..	..	..
Diseases of the respiratory system other than pneumonia and tuberculosis—			
Total treated ..	..	16,628	16,671
Deaths ..	46	..	46
Diseases of the teeth and gums excluding tumours—			
Total treated ..	48	2,424	2,472
Deaths ..	..	..	..



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STATEMENT D—cont.

Showing the diseases, etc., of the in-door and out-door patients treated in the Government General Hospital, Madras, during the year 1936—cont.

	In-patients.	Out-patients.	Total number of in-patients and out-patients.		In-patients.	Out-patients.	Total number of in-patients and out-patients.
Diseases of the stomach excluding tumours—				Ascites of unknown or doubtful origin—			
Total treated ..	525	6,633	7,158	Total treated ..	125	252	377
Deaths ..	77	..	77	Deaths ..	11	..	11
Diseases of the intestines excluding diarrhoea, dysentery and tumours—				Other diseases of the digestive system excluding diarrhoea, dysentery and tumours—			
Total treated ..	340	655	995	Total treated ..	137	3,578	3,715
Deaths ..	79	..	79	Deaths ..	18	..	18
Liver abscess—				Grand total—			
Total treated ..	13	134	147	Total treated ..	16,893	141,930	158,823
Deaths ..	6	..	6	Deaths ..	1,236	..	1,236
Other diseases of the liver—				Surgical cases—			
Total treated ..	178	1,623	1,801	Total treated ..	..	..	..
Deaths ..	18	..	18	Deaths ..	..	..	..
Appendicitis—							
Total treated ..	236	724	960				
Deaths ..	23	..	23				

STATEMENT E.

Showing the surgical operations performed in the Government General Hospital, Madras, during the year 1936.

Nature of operation.		Number of patients remaining from last year.	Number of operations performed during the year.			Number of patients operated on in columns (3) to (5).	Result of operations on patients.				Number of patients remaining at close.
(1)	(2)		Principal.	Second-ary.	Total.		(6)	(7)	(8)	(9)	
Operations on tumours.											
(a) Removal by excision or other methods	..	..	3	168	..	168	167	..	..	1	3
(b) Radium treatment	..	..	2	50	21	71	50	..	46	..	6
(c) Removal by diathermy	..	..	..	35	..	35	21	14	..	..	..
Total	..	..	5	253	21	274	253	188	60	..	9
Operations on cyst.											
Removal by enucleation or excision	..	..	..	82	..	82	81	..	..	1	..
Total	..	..	..	82	..	82	81	..	..	1	..
Operations on abscesses.											
(a) For acute abscess—Incision	..	..	12	4,735	47	4,782	4,735	4,733	..	..	3
(b) For chronic abscesses—	..	..	..	..	..	..	..	..	..	..	..
(i) Incision and drainage	..	..	1	34	..	34	34	35	..	..	..
(ii) Aspiration	..	..	2	51	17	64	51	51	..	..	2
Total	..	..	15	4,820	64	4,884	4,820	4,819	..	..	13
Removal of foreign bodies.											
(a) From the natural passages (except external ear and urethra)	..	..	..	11	..	11	11	11	..	..	..
(b) Impacted or embedded	..	..	..	22	..	22	22	22	..	..	..
Total	..	..	..	33	..	33	33	33	..	..	..
Operations on arteries.											
Ligature	..	..	..	3	..	3	3	3	..	..	..
Total	..	..	..	3	..	3	3	3	..	..	..
Operations on lymphatics.											
Removal of glands by excision except from neck	..	..	..	43	..	43	43	43	..	..	..
Total	..	..	..	43	..	43	43	43	..	..	..

STATEMENT E—cont.

Showing the surgical operations performed in the Government General Hospital, Madras, during the year 1936—cont.

Nature of operation.	(1)	Number of patients remaining from last year.	Number of operations performed during the year.			Number of patients operated on in columns (3) to (5).	Result of operations on patients.				Number of patients remaining at close.
			Principal.	Second-ary.	Total.		Cured.	Relieved.	Discharged otherwise.	Died.	
Operations on nerves.											
Injection of medical substances	..	..	9	3	12	9	..	9	..	..	..
Nerve suture	..	..	3	..	3	3	3	..	..	..	..
Removal of sympathetic ganglia	..	..	3	..	3	3	..	3	..	..	..
Total	..	..	15	3	18	15	3	12	..	..	..
Operations on the skin and subcutaneous tissue.											
Repair of wounds	..	..	43	..	43	43	43	..	..	..	..
Skin grafting	..	..	41	..	41	41	41	..	..	..	..
Removal of—	..	..	..	..	..	..	..	..	..	..	..
Sinusitis	..	..	67	14	81	67	66	..	..	..	1
Carbuncles	..	..	1	45	52	45	42	..	..	3	1
Incision for cellulitis	..	..	1	126	126	126	123	..	..	2	2
Total	..	2	322	21	343	322	315	..	..	5	4
Operations on bones excluding amputation.											
Osteotomy	..	..	17	..	17	17	17	..	..	..	..
Wiring, plating or otherwise uniting fractured bones	..	1	374	..	374	374	375	..	..	..	..
Removal of sequestra	..	..	2	70	8	78	70	69	..	1	2
Total	..	3	461	8	469	461	461	..	..	1	2
Operations on joints excluding disarticulation.											
Reduction of dislocations—	..	..	..	..	..	..	..	..	..	..	..
Lower jaw	..	..	12	..	12	12	12	..	..	..	..
Shoulder	..	..	153	..	153	153	153	..	..	..	..
Elbow	..	..	125	..	125	125	125	..	..	..	..
Hip	..	..	24	..	24	24	24	..	..	..	..
Knee	..	..	..	..	..	..	..	..	..	..	..
Other joints	..	..	21	..	21	21	21	..	..	..	..
Total	..	..	335	..	335	335	335	..	..	..	..
Aspiration	..	..	17	..	17	17	17	..	..	..	..
Arthrotomy	..	..	21	..	21	21	21	..	..	..	..
Arthroectomy	..	..	9	..	9	9	9	..	..	..	..
Total	..	..	382	..	382	382	382	..	..	..	..
Operations on muscles, tendons, bursae and fascia.											
Tenotomy	..	..	15	..	15	15	15	..	..	..	..
Union of divided tendon or muscle	..	..	12	..	12	12	12	..	..	..	..
Total	..	..	27	..	27	27	27	..	..	..	..
Amputations and disarticulations.											
Arm	..	..	10	..	10	10	9	..	..	1	..
Forearm	..	..	7	..	7	7	7	..	..	..	..
Wrist and hand	..	..	6	..	6	6	6	..	..	..	..
Thigh	..	..	14	..	14	14	11	..	..	2	1
Leg	..	..	14	..	14	14	13	..	..	..	1
Ankle and foot	..	..	1	9	9	9	9	..	..	..	1
Total	..	1	60	..	60	60	55	..	..	3	3
Operations on the skull.											
Trephining	..	..	7	..	7	7	4	..	1	2	..
Elevation of depressed bone	..	..	6	..	6	6	5	..	..	1	..
Total	..	..	13	..	13	13	9	..	1	3	..
Operations on the brain and meninges.											
Removal of gasserian ganglion	..	..	2	..	2	2	2	..	..	..	..
Removal of cyst	..	..	2	..	2	2	2	..	..	..	..
Total	..	..	4	..	4	4	4	..	..	..	..
Operations on the face.											
For harelip	..	..	6	..	6	6	6	..	..	..	..
Total	..	..	6	..	6	6	6	..	..	..	..

STATEMENT E—cont.

Showing the surgical operations performed in the Government General Hospital, Madras, during the year 1936—cont.

Nature of operation.	(1)	Number of patients remaining from last year.	Number of operations performed during the year.			Number of patients operated on in columns (3) to (5).	Result of operations on patients.				Number of patients remaining at close.
			Principal.	Second-ary.	Total.		Cured.	Relieved.	Discharged otherwise.	Died.	
Operations within the mouth and on the naso-pharynx.											
For new growths	..	..	10	..	10	10	6	4	..	..	..
For cleft-palate	..	..	4	..	4	4	4	..	..	..	..
Removal of tonsils and adenoids	..	..	827	..	827	827	825	..	..	2	..
Incision of tonsillar or peri-tonsillar abscess	..	..	8	..	8	8	..	8	..	..	..
For ranulae	..	..	8	..	8	8	8	..	..	..	..
Dental operations—	..	..	6,426	..	6,426	6,426	6,426	..	..	..	..
Extraction	..	..	701	..	701	701	701	..	..	..	..
Filling	..	..	6,336	..	6,336	6,336	6,336	..	..	..	..
Scaling	..	..	5,224	..	5,224	5,224	5,224	..	..	..	..
Other dental operations	..	..	..	..	..	..	..	..	..	..	..
Total	..	..	19,544	..	19,544	19,544	19,530	12	..	2	..
Operations on the nasal cavities and accessory sinuses.											
On nasal septum	..	..	3	..	3	3	3	..	..	..	..
On turbinate bones	..	..	4	..	4	4	4	..	..	..	..
Removal of polypus	..	..	17	..	17	17	17	..	..	..	..
On accessory sinusitis	..	..	20	..	20	20	20	..	..	..	..
Total	..	..	44	..	44	44	44	..	..	..	..
Operations on the ear and mastoid processes.											
Removal of foreign bodies	..	..	23	..	23	23	23	..	..	..	..
Incision of membrana tympani	..	..	7	..	7	7	7	..	..	..	..
On mastoid antrum—	..	..	2	56	58	56	56	..	..	..	2
Simple	..	..	..	..	..	..	..	..	..	..	..
Radical	..	..	..	..	..	..	..	..	..	..	..
Total	..	2	86	..	86	86	86	..	..	..	2
Operations on the larynx, trachea and bronchi.											
Tracheotomy	..	..	21	..	21	21	10	8	..	2	1
Removal of foreign bodies	..	..	4	..	4	4	3	..	..	1	..
Total	..	..	25	..	25	25	13	8	..	3	1
Operations on the thyroid and parathyroid glands.											
Partial removal of gland or removal of cyst or tumour.	..	..	12	..	12	12	10	..	..	2	..
Total	..	..	12	..	12	12	10	..	..	2	..
Operations on the neck.											
Excision of glands	..	..	30	..	30	30	30	..	..	..	..
Removal of cervical rib	..	..	2	..	2	2	2	..	..	..	..
Total	..	..	32	..	32	32	32	..	..	..	..
Operations on the breast.											
Excision of breast—	..	..	13	..	13	13	13	..	..	..	..
Simple and partial	..	..	1	16	17	16	15	..	..	1	1
Radical with lymphatics	..	..	..	..	..	..	..	..	..	..	..
Total	..	1	29	..	29	29	28	..	..	1	1
Operations on the abdominal wall and cavity.											
For inguinal hernia—	..	..	4	235	239	235	228	..	..	2	9
For radical cure	..	..	1	66	67	66	60	..	..	5	2
For strangulation	..	..	..	8	8	8	7	..	..	1	..
For other forms of hernia	..	..	3	75	78	75	45	18	..	11	4
Exploratory laparotomy	..	..	..	..	..	..	..	..	..	..	..
Total	..	8	384	..	384	384	340	18	..	19	15
Operations on the stomach.											
Gastro-enterostomy	..	..	9	261	270	261	257	..	..	2	11
Partial gastrectomy with anastomosis	..	..	10	..	10	10	4	..	..	2	4
Gastrostomy	..	..	9	..	9	9	..	9	..	..	..
Total	..	9	280	..	280	280	261	9	..	4	15

STATEMENT E—cont.

Showing the surgical operations performed in the Government General Hospital, Madras, during the year 1936—cont.

Nature of operation.	(1)	Number of patients remaining from last year.	Number of operations performed during the year.			Number of patients operated on in columns (3) to (5).	Result of operations on patients.				Number of patients remaining at close.
			Principal.	Second-ary.	Total.		Cured.	Relieved.	Discharg- ed other- wise.	Died.	
Operations on the intestines.											
Appendicetomy	..	2	162	..	162	162	155	..	..	2	7
Opening of appendicular abscess	..	..	14	..	14	14	14	..	..	..	..
Colostomy	..	..	16	..	16	16	..	15	..	..	1
Intestinal anastomosis	..	..	12	..	12	12	8	..	..	4	..
Suture for perforation	..	..	14	..	14	14	8	..	..	6	..
Total	..	2	218	..	218	218	185	15	..	12	8
Operations on the rectum and anus.											
For hæmorrhoids	..	5	92	..	92	92	94	..	..	..	3
Excision of—	..	..	..	..	..	..	..	..	..	..	..
Anal fissure	..	..	7	..	7	7	7	..	..	..	..
Fistula in ano	..	..	62	..	62	62	61	..	..	..	1
Incision of ischio-rectal abscess	..	..	9	..	9	9	9	..	..	..	..
For prolapse rectum	..	..	5	..	5	5	5	..	..	..	..
Excision of rectum	..	..	1	..	1	1	1	..	..	..	..
Sigmoidoscopy	..	..	23	..	23	23	..	23	..	..	..
Incision of imperforate anus	..	..	4	..	4	4	3	..	..	1	..
Total	..	5	203	..	203	203	180	23	..	1	4
Operations on the liver, gall bladder and bile ducts.											
Incision of abscess	..	..	1	..	1	1	1	..	..	..	..
Paracentesis of abscess	..	..	31	9	40	31	29	..	..	..	2
Cholecystotomy	..	..	1	..	1	1	1	..	..	..	..
Cholecystectomy	..	..	14	..	14	14	7	..	..	3	4
Total	..	..	47	9	56	47	38	..	..	8	6
Operations on the spleen.											
Splenectomy	..	..	..	..	..	..	..	..	..	..	..
Operations on the kidneys and ureters.											
Nephrotomy and nephrolithotomy	..	..	4	..	4	4	3	..	..	1	..
Nephrectomy	..	..	6	..	6	6	4	..	..	1	1
Transplantation of ureters	..	..	1	..	1	1	1	..	..	..	..
Total	..	..	11	..	11	11	8	..	..	2	1
Operations on the bladder.											
Cystoscopy	..	..	55	..	55	55	..	55	..	..	..
Cystotomy	..	..	32	..	32	32	23	5	..	2	2
Lithotomy-suprapubic	..	..	9	..	9	9	9	..	..	..	..
Lithotripsy	..	..	4	..	4	4	4	..	..	..	..
Total	..	..	100	..	100	100	36	60	..	2	2
Operations on the prostate.											
Prostatectomy	..	..	2	..	2	2	1	..	..	1	..
Total	..	..	2	..	2	2	1	..	..	1	..
Operations on the urethra.											
Dilatation of stricture	..	..	2	190	32	222	190	..	190	..	2
Urethrotomy	..	..	1	12	..	12	12	13	..	..	..
Total	..	..	3	202	32	234	202	13	190	..	2
Operations on the male generative organs.											
Circumcision	..	..	235	..	235	235	235	..	..	..	..
Amputation of penis	..	..	14	..	14	14	14	..	..	..	..
Radical cure of hydrocele	..	..	2	285	..	285	285	274	..	..	13
Excision of elephantoid scrotum and penis	..	..	28	..	28	28	25	..	..	3	..
Removal of testis	..	..	7	..	7	7	7	..	..	..	..
Total	..	2	569	..	569	569	555	..	..	3	13
Operations on the female generative organs.											
For ovarian cyst	..	..	2	..	2	2	2	..	..	..	..
Total	..	..	2	..	2	2	2	..	..	..	..
Grand total	..	58	28,314	158	28,472	28,314	27,791	407	1	72	101

STATEMENT III-B.
Selected list of surgical operations showing the number of each performed by Individual Medical Officers.

Name of operator.	Period on duty.	Removal of gaserian ganglion.	Operation for cleft palate.	Removal of tonsils.	Operations on the mastoid bone.	Operations on the thyroid gland.	Removal of cervical rib.	Radical excision of breast.	Removal of sympathetic ganglia.	Laparotomy.	Gastro-enterostomy.	Partial gastrectomy.	Appendicectomy.	Cholecystectomy.	Nephro-lithotomy.	Nephrectomy.	Transplantation of ureters.	Suprapubic lithotomy.	Prostatectomy.	Total.
Lieut.-Col. K. G. Pandalai, I.M.S.	.. 1st January to 31st December 1936.	1	2	2	1	8	1	4	1	15	85	4	51	3	3	1	1	2	..	185
Lieut.-Col. M. M. Cruickshank, I.M.S.	.. 1st January to 23rd December 1936.	..	2	..	..	2	..	7	2	8	37	4	18	2	..	3	..	3	1	89
Mr. N. Mangesh Rao	.. 1st January to 31st December 1936.	..	..	2	3	2	..	2	..	7	42	1	58	6	1	2	..	2	1	129
Mr. B. M. Sundaravadanam	.. 1st January to 31st December 1936.	1	..	..	..	..	1	3	..	16	97	1	18	3	..	..	..	2	..	142
Mr. P. V. Cherian	.. 1st January to 6th May 1936 and 7th September to 31st December 1936.	..	..	615	37	..	..	..	..	..	..	..	..	..	..	..	..	..	..	652
Mr. D. Hari Rao	.. 7th May to 7th September 1936.	..	..	208	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	223
Mr. V. Srinivasa Rao	.. 1st January to 31st December 1936.	..	..	..	..	..	..	..	..	15	..	..	10	..	..	..	..	..	..	25
Mr. N. N. Sujeev	.. 1st January to 31st December 1936.	..	..	..	..	..	..	..	..	14	..	..	7	..	..	..	..	..	..	21
	Total ..	2	4	827	56	12	2	16	3	75	261	10	162	14	4	6	1	9	2	1,466

STATEMENT F

Showing the income and expenditure of State-public, Local Fund and Private-aided Hospitals and Dispensaries of the Government General Hospital, Madras, in the year 1936.

Income.		Expenditure.	
	Rs.		Rs.
Cash balance	..	Salaries—	
Contributions—		Medical officers	75,724
From Government	9,01,948	Nurses	1,57,176
From local and municipal bodies ..	20,000	Inferior servants	91,864
Fees and contributions from patients ..	(a) 48,833	Medicines	(c) 1,62,291
Funds collected by hospital committees, charitable contributions and donations	..	Diet	1,13,640
Miscellaneous including interest on investments, sale of securities, etc. ..	(b) 5,747	Apparatus (repairs and renewals) ..	(d) 15,239
Total, Receipts ..	9,76,528	New buildings, additions to apparatus and other capital expenditure ..	1,01,439
		Repairs to buildings	15,945
		Miscellaneous charges	1,53,410
		Total Expenditure	9,76,528
		Closing balance including investments, deposits, etc.	..
		Average cost of diet per in-patient ..	..

- (a) Includes recoveries on account of—
 (1) Hospital stoppages and fees for operations.
 (2) Fee for X-ray examinations and treatment including fees for Radium treatment—Rs. 3,533.
 (b) Recoveries on account of anti-rabic vaccine—Rs. 168.
 Special medicine—Rs. 677.
 Sale-proceeds of General Hospital Pharmacopæia—Rs. 228.
 (c) Includes—
 (1) Cost of vaccine and Sera obtained from the King Institute, Guindy—Rs. 36,891.
 (2) Anti-rabic vaccine—Rs. 3,570.
 (d) Articles obtained on Home-Indent.

STATEMENT G.

Account of invested capital of the hospitals and dispensaries, in the year 1936.

Nil.

APPENDIX A.

Comparative statement of the medical work done in the General Hospital, Madras, for the three years ending 1936.

	1934.	1935.	1936.	Average cost of diet—	1934.	1935.	1936.
In-patients—				General wards—			
Total treated—				Europeans and Anglo-Indians.	Rs. 0 9 9½	0 9 5½	0 9 2
Europeans and Anglo-Indians.	2,088	2,102	2,266	Non-Europeans	.. 0 5 10½	0 5 8½	0 5 11½
Non-Europeans	13,870	13,861	14,627	Special wards—			
Average daily sick—				A class	1 15 6	1 11 5	1 11 1½
Europeans and Anglo-Indians.	102.03	102.80	109.13	B class	1 10 6½	1 9 11½	1 4 4
Non-Europeans	582.40	595.97	628.18	Out-patients—			
Deaths—				Total treated—			
Europeans and Anglo-Indians.	89	111	110	Europeans and Anglo-Indians.	7,711	8,196	9,276
Non-Europeans	1,075	1,153	1,126	Non-Europeans	116,304	125,885	132,654
Total	1,164	1,264	1,236	Total	124,075	134,081	141,930
Operations	6,440	24,996	28,472	Average daily sick	1,006.47	965.18	1,123.34

APPENDIX B.

Statement showing the in-patients treated, with results, in the year 1936.

Serial number.	Disease.	Admissions.			Results.					
		Remained.	Admitted.	Total.	Cured.	Relieved.	Discharged otherwise.	Died.	Remaining.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Cholera	..	3	3	..	..	3	..	..	3
2	Dengue	..	231	231	172	22	18	..	15	231
3	Dysentery { Amoebic	9	402	411	224	118	41	15	13	411
4	Bacillary	13	312	325	182	80	22	22	19	325
5	Diarrhoea	8	189	197	106	42	19	18	12	197
6	Diphtheria	..	95	95	53	7	11	17	7	95
7	Enteric fever	..	508	517	382	68	23	70	15	517
8	Syphilis (acquired and congenital)	16	235	251	14	143	57	16	21	251
9	Gonococcal infection	14	138	152	..	96	29	9	18	152
10	Soft chancre	3	58	61	..	31	15	8	7	61
11	Other diseases of venereal origin	2	114	116	21	48	34	8	5	116
12	Influenza	30	711	741	419	164	76	49	33	741
13	Kala Azar	9	246	255	133	65	38	5	14	255
14	Leprosy	..	9	9	..	..	..	..	..	9
15	Malaria	12	565	577	238	106	94	27	18	577
16	Measles	..	12	12	..	..	12	..	..	12
17	Meningococcal infection	..	7	7	2	..	..	3	2	7
18	Pneumonia	9	378	387	169	110	39	56	13	387
19	Rheumatic fever	4	165	169	74	41	27	16	11	169
20	Sandfly fever	..	3	3	..	2	..	..	1	3
21	Smallpox	..	6	6	..	1	5	..	..	6
22	Tuberculosis of the lungs	7	487	494	41	240	123	77	13	494
23	Other forms of tuberculosis	10	305	315	65	148	46	39	17	315
24	Pyrexia of uncertain origin, etc.	21	304	325	169	88	32	10	25	325
25	Ankylostomiasis	12	290	302	32	76	85	6	13	302
26	Guinea worm	..	21	21	9	4	6	..	2	21
27	Filaria	..	97	97	14	49	31	..	3	97
28	Scabies	11	123	134	34	38	48	..	14	134
29	Tumours Benign	..	80	80	39	26	12	1	2	80
30	Oesophagus and stomach	..	5	5	..	1	1	..	1	5
31	Intestines	..	14	14	4	..	1	3	3	14
32	Rectum	..	9	9	1	2	2	..	1	9
33	Breast	..	2	2	..	2	2	..	..	2
34	Malignant tumours uterus	..	11	11	2	3	2	3	1	11
35	Penis	..	6	6	..	..	..	..	..	6
36	Skin	..	164	170	60	49	39	13	9	170
37	Other	..	252	260	139	60	37	13	11	260
38	Diseases of the nervous system	20	236	256	127	54	46	6	23	256
39	Ascites	27	463	490	128	198	99	35	30	490
40	Diseases of the ear	22	921	943	582	202	113	21	25	943
41	nose	9	482	491	289	158	18	12	14	491
42	circulatory system	26	627	653	186	330	65	45	27	653
43	blood and spleen	..	192	192	54	113	19	4	2	192
44	Inflammation of the lymphatic glands and vessels	6	155	161	75	61	23	4	8	161
45	Gout	..	6	6	3	2	..	..	1	6
46	Other diseases of the ductless glands	7	127	134	31	75	19	..	9	134
47	Diseases of the breasts excluding tumour	..	16	16	5	3	5	..	3	16
48	Diabetes	..	53	53	12	32	17	..	2	53
49	Beri Beri	..	6	6	2	1	1	1	1	6
50	Epidemic dropsy	2	25	27	10	7	3	3	4	27
51	Rickets	..	11	11	5	3	1	..	2	11
52	Scurvy	2	16	18	9	4	2	..	3	18
53	Other diseases due to deficiency, etc.	..	32	32	8	14	3	..	7	32
54	Hydrocele	19	307	326	198	81	41	8	5	326
55	Other diseases of the generative system	9	152	161	78	29	23	20	11	161
56	Diseases of the bones, etc.	32	263	295	94	122	41	4	34	295
57	Elephantiasis	3	38	41	..	15	25	..	1	41
58	Diseases of the areolar tissue	13	345	358	182	88	42	31	15	358
59	Ulcerative inflammation	15	203	218	109	47	31	14	17	218
60	Other diseases of the skin and nails excluding tumours	21	191	212	16	72	90	3	22	212
61	Nephritis	17	351	368	191	88	24	46	19	368
62	Stone in bladder	..	68	68	17	20	11	7	4	68
63	Other diseases of the urinary organs	10	109	119	52	29	18	8	12	119
64	Injuries (general and local)	36	1,455	1,491	948	223	163	127	30	1,491
65	Opium poisoning	..	8	8	5	..	3	..	..	8
66	Other poisoning	5	208	213	114	39	22	33	5	213
67	Diseases of the respiratory system	21	1,222	1,243	456	630	89	46	22	1,243
68	Diseases of the teeth	..	48	48	29	13	6	..	7	48
69	Diseases of the stomach	10	515	525	243	139	59	77	7	525
70	Diseases of the intestines	17	323	340	159	73	16	79	13	340
71	Liver abscess	1	12	13	2	4	1	6	..	13
72	Other diseases of the liver	3	175	178	116	33	9	18	2	178
73	Appendicitis	8	228	236	118	47	42	23	6	236
74	Ascites of unknown origin	2	123	125	24	56	34	11	..	125
75	Other diseases of the digestive system	6	131	137	25	78	11	18	5	137
Total		582	16,311	16,893	7,451	5,200	2,272	1,236	734	16,893

THE BARNARD INSTITUTE OF RADIOLOGY, MADRAS.

ADMINISTRATION REPORT AND STATISTICS, 1936.

Captain T. W. Barnard was in charge of the Institute but proceeded on leave out of India from 2nd May 1936 to 17th October 1936 during which period Dr. M. J. Santanakrishna Pillai, L.R.C.P. & S., etc., D. R. (Univ. Edin.), Medical Superintendent, was in additional charge of the Institute.

Buildings and apparatus.—Except for the laying out of the ground adjacent to the Institute, the building has been completed, although a scheme is now under consideration for building two Radium Treatment Wards for fifty patients—thirty men and twenty women—who would normally be treated in the General Hospital. The apparatus for the Hydrotherapy and Urological Departments has been installed and will be brought into use the latter immediately and the former when the Masseuse arrives from England. This also applies to the Massage Department which still remains closed. The installation of the Deep X Ray Therapy (400,000 volts) apparatus has presented many difficulties and although we have the assistance of the manufacturers, European "X-Ray" Engineer the outfit will not be ready for use until May 1937 and then only partially until this section is air-conditioned. The 200,000 volt X-Ray Therapy section, the two Superficial X-Ray Therapy departments and the Chaoul Contact X-Ray Therapy Department have recently been brought into use.

The workshop section in the Institute has proved a great asset and much time and money have been saved in repairs to apparatus.

The air-conditioning of the remaining portion of the Diagnostic X-Ray section has now been completed and will be brought into use within the next month. Proposals have been made to Government for the air-conditioning of the Deep X-Ray Therapy section where it is impossible to use the apparatus to full advantage owing to leakage of high tension current due to high percentage of humidity in Madras.

Radium Therapy.—Failla's Semi automatic Radon apparatus was successfully installed after much trouble. This consists of a large number of glass parts all of which had to be joined up by glass-blowing after these sections had been placed in position on the apparatus stand. 250 milligrammes of Radium Element were experimentally utilized and this having regularly supplied 40 millicuries of Radon each day for six months, we are now fully justified in adding the remaining 600 milligrammes of Radium Element

which were procured for the manufacture of Radon. When completed, this apparatus will give about 140 millicuries of Radon per day which for the purpose of treating patients may be considered equivalent to the value of approximately 70 milligrammes of Radium Element. It is proposed to open four or five Cancer treatment centres in the Presidency and despatch to these places Radon to be used in the treatment of this disease.

The Radium Advisory Committee, supported by expert opinion from England, advised that a Physicist of high qualifications on a good rate of pay should be engaged for the Institute. But Government decided to employ a second Assistant Physicist, agreeing to review the situation after two or three years. The two Assistant Physicists will be detailed for duty on alternate weeks in the Radon Department, the period off-duty being spent in the Physics Laboratory and the Deep X-Ray Department. By this arrangement, we hope to avoid possible fatalities due to exposure to Radium emanation.

Finance.—Statement A appended to the report shows the financial position of the Institute.

Income.—The following amounts represent the fees credited to Government during the past three years, under G.Os. Ms. No. 917, P.H., dated 11th June 1923, No. 63, P.H., dated 8th January 1929, Ms. No. 1826, P.H., dated 26th August 1932, No. 988, P.H., dated 9th May 1933, No. 2337, P.H., dated 5th October 1934, No. 780, P.H., dated 3rd April 1935, Ms. No. 1831, L. & M., dated 28th September 1931, No. 599, P.H., dated 18th March 1935 and No. 1223, P.H., dated 12th August 1936:—

Year.	Amount credited to Government.		
	RS.	A.	P.
1934	5,526	10	5
1935	10,560	9	6
1936	*21,992	13	11

Cost per sitting.—This was Re. 1-3-3 as shown in statement A of the report.

Fire-protection.—Necessary fire buckets and fire extinguishers have been provided.

Supplies and Services—Medicines.—These were obtained from the Madras Medical Store Depot, emergent requisitions, not available at the Medical Store Depot, being met by local purchases.

European Stores.—X-Ray films, and storing envelopes for these were obtained on contract basis from Messrs. Kodak, Limited, Madras,

* Includes Rs. 4,233-12-0 recovered from paying patients attending for treatment or examination from other hospitals and Rs. 3,225 recovered as training fees.

and chemicals and apparatus manufactured in Europe and America were ordered on indents through the India Store Department, London.

According to Government Orders European and American manufactured stores should be obtained through the India Store Department, London. The Director investigated the possibility of purchasing these Stores in Madras at a less cost than that at which goods are obtained through the India Store Department. He has proved that on X-Ray films alone a sum of approximately Rs. 10,000 per year can be saved by the Government of Madras by buying these locally. Government agreed to this procedure and nearly Rs. 10,000 has thus been saved during the year under review.

Investigation has also proved that an X-Ray apparatus suitable for mufassal hospitals can be purchased through the local agents for a sum of approximately Rs. 9,000. An exactly similar apparatus purchased from the same manufacturers through the India Store Department costs approximately Rs. 11,000. By placing the order locally we should, in addition to the saving of Rs. 2,000 also secure free installation and free service for one year after installation by competent X-Ray Engineers. These are tremendous assets especially in an up-country station (mofassal hospitals) where expert supervision and advice is unobtainable, unless the technical staff of this Institute is deputed for the purpose. This deputation involves loss of service in Madras of these assistants and travelling allowances.

The Director suggests that the whole question of ordering European Stores through the India Store Department needs reviewing, now that all large manufacturers have complete agencies locally, which did not exist ten years ago.

Hospital necessities.—These were obtained by local purchase as required.

Linen.—General Hospital Linen Department washed the Institute linen, the cost to that department being Rs. 183-5-7 as against Rs. 176-5-6 in the previous year.

Linen replacements.—These were made by the Linen Department of the General Hospital.

Electric installation.—The cost of electric power was Rs. 6,804-4-11 as against Rupees 6,266-1-0 in the previous year.

Water-supply.—The cost under this item, amounting to Rs. 1,369-0-0 as against Rupees 778-12-0 in the previous year, is included in the returns of the General Hospital.

Telephone charges.—The expenditure was Rs. 241-3-9 as against Rs. 235-2-0 for the previous year.

Sale of unserviceable articles.—These were as usual, sent to the General Hospital Auction Room for public auction and the proceeds realized therefrom are included in their returns.

Verification of stock.—The stock of Government property was verified and found correct.

Verification of service registers.—The service registers of the superior and inferior establishments were verified up to 31st December 1936.

Training.—Five Medical Officers were trained at this Institute during the year. A sum of Rs. 3,225 was realized during the year from candidates who underwent training.

Final year students of the Madras Medical College were given the usual course in Radiology consisting of twelve lectures, each month, each of these being followed by demonstration.

Medical staff.—This remained the same during the year. The services of a Sub-Assistant Surgeon placed at our disposal, on a temporary basis year after year, have been extended for another year. We require the services of a female Sub-Assistant Surgeon in addition to the present male medical staff.

Non-medical subordinates.—Government having been addressed to sanction the present temporary staff on a permanent basis orders were received for the continuance of these posts for another year temporarily.

Nursing staff.—During the year, the proposal for an additional staff nurse for this Institute was refused by Government but the need for the same is very keenly felt and it will be necessary to repeat the request in view of the increase in the work.

Office staff.—The temporary post of Head Clerk and Accountant, was filled on 30th May 1936.

General remarks.—The statistics show the great increase in the attendance of patients the number of which will be still greater when the Massage Department is opened and the X-Ray Therapy section is in full working order. It is remarkable that in sixteen years the number should have risen from approximately 3,000 to 120,000 "sittings."

The Institute staff.—In conclusion I cannot but express my appreciation of the good work and co-operation contributed by every member of the staff during the year under report.

Note.—The following are appended:—Tables I, II, III, IV and V, Statement A and the Medical Superintendent's Report.

T. W. BARNARD, Capt.,
Director, The Barnard Institute of Radiology.

Madras, 12th April 1937.

TABLE I.

Statement showing the total number of sittings given during the years 1920 to 1930.

Year.	Total number of sittings.	Year.	Total number of sittings.
1920	3,465	1926	51,889
1921	7,315	1927	61,963
1922	11,757	1928	67,063
1923	17,778	1929	75,351
1924	26,937	1930	71,846
1925	39,001		

TABLE II.

Comparative statistics of the work performed from 1931 to 1936.

Nature of work performed.	1931.	1932.	1933.	1934.	1935.	1936.
I. (a) Radiographs	21,755	25,309	26,867	29,220	32,141	37,283
(b) Screening examination	504	434	232	228	360	1,173
II. (a) Clinical photographs and lantern slides	747	1,331	1,278	1,544	1,930	1,993
(b) Radiographic and photographic prints	841	152	1,203	1,000	1,684	4,866
III. (a) Radio-therapeutic exposures	4,290	4,588	4,123	3,855	4,117	5,415
(b) Deep-therapy exposures	282	248	569	666	761	1,755
(c) Radium	+ 953	+ 855	+ 822	+ 911	+ 871	+ 1,179
IV. Electro-cardiographs	761	775	775	281	421	566
V. Electro-therapeutic sittings—						
(a) Galvanization and Caustery	9,141	4,494	1,960	1,818	2,783	2,549
(b) Faradization and sinusoidal currents	11,275	9,868	7,752	7,752	7,363	8,855
(c) Ionic medication	3,953	4,078	5,713	6,364	5,194	4,125
(d) Electrolysis, etc.	15	17	17	2	17	..
(e) Vibratory massage	513	13	13	13	173	111
(f) Muscle testing	111	156	124	10,203	14,158	13,454
(g) Diathermy and high frequency	7,640	9,448	10,407	18,549	22,404	35,379
(h) Light treatment and radiant heat	10,741	13,506	14,582	18,549	22,404	35,379
(i) Carbon-di-oxide snow	278	383	1,810	385	(a) 1	(a) 1
(j) Orthopedic exercises	1,031	209	321	50	44	223
(k) Whirlpool bath	142	25	..	104	85	38
(l) Erotic bath	..	..	..	..	..	920
(m) Wax bath	..	..	..	..	..	..
(n) Ultra short wave therapy	..	..	..	..	..	..
Total	73,264	74,971	77,778	82,273	93,712	119,447
	+ 953	+ 855	+ 822	+ 911	+ 871	+ 1,179

* Represents the number of treatments given at the City Hospitals with radium issued from the Barnard Institute of Radiology.
(a) Owing to the non-appointment of the Masseuse, the Massage and Remedial Exercise department has not yet been opened.

TABLE III.

Statement showing the number of treatments given at the various institutions in the City of Madras with the radium issued from the Barnard Institute of Radiology.

Name of institution.	Number of treatments given.
Government General Hospital	385
Government Hospital for Women and Children	496
Government Ophthalmic Hospital	35
Government Gosha Hospital	263
Government Rayapuram Hospital	1,755
The Barnard Institute of Radiology, out-patients	2,934
Total	2,934

TABLE IV.

Statement showing the amounts collected by the hospitals concerned from paying in-patients and credited to Government in full on account of radiological examination or treatment or both carried out at the Barnard Institute of Radiology, Madras, during the year 1936.

Name of institution.	Amount collected and credited to Government.
	RS. A. P.
Government General Hospital	3,229 12 0
Government Hospital for Women and Children	675 8 0
Government Ophthalmic Hospital	5 0 0
Government Gosha Hospital	69 0 0
Government Rayapuram Hospital	21 0 0
Government Royapetta Hospital	20 8 0
Government Tuberculosis Hospital	173 0 0
Government Mental Hospital	40 0 0
The Barnard Institute of Radiology	14,152 5 0
Total	18,366 1 0

TABLE V.

Statement showing the amounts collected by the City Hospitals from patients liable for fees for radium treatment.

Name of institution.	Amount collected and credited to Government.
	RS. A. P.
Government General Hospital	366 0 0
Hospital for Women and Children	495 0 0
Tuberculosis Hospital	5 0 0
Ophthalmic Hospital	288 0 0
Gosha Hospital	
Barnard Institute of Radiology	
Total	1,154 0 0

STATEMENT A.

Statement showing income and expenditure, total and daily average number of sittings given and the cost per sitting at the Barnard Institute of Radiology, Madras, during the year 1936 as compared with 1934 and 1935.

Particulars.	1934.			1935.			1936.		
	RS.	A.	P.	RS.	A.	P.	RS.	A.	P.
Income—									
As salary	58,572	7	0	58,236	6	0	48,121	0	0
Otherwise	93,885	10	3	95,022	6	7	1,99,462	0	8
Fees credited to Government	5,526	10	5	10,560	9	6	17,790	1	11
Fees collected by other Government hospitals for work done by this Institute (Table IV and V)	3,238	8	0	3,755	2	0	4,233	12	0
Total ..	1,61,223	3	8	1,67,574	8	1	2,69,606	14	7
Expenditure—									
Pay of officers	42,035	14	0	(a) 36,549	15	0	(a) 36,014	7	0
Pay of establishments	15,714	10	0	21,686	7	0	22,106	9	0
Honoraria and allowances for officers and establishments	821	15	0	8,113	11	0	11,692	14	0
Pay of menials	885	9	0	1,180	8	0	1,186	10	0
Telephone charges	258	4	0	235	2	0	241	3	9
Books and periodicals	69	12	4	210	5	2	40	9	4
Hospital necessities and medicines supplied by the Medical Store Depot, Madras	12,078	0	11	5,960	11	0	49,803	12	11
Other contingencies	6,959	2	5	12,442	3	11	7,807	10	7
Cost of indented Europe stores	82,400	0	0	78,102	15	0	* 1,40,713	2	0
Total ..	1,61,223	3	8	1,67,574	8	1	2,69,606	14	7

Cost of X-Ray stores supplied to X-Ray Departments—Rs. 49,106.

Total number of sittings given in 1936—119,447.

Daily average—398.2.

Average "cost per sitting"—Rs. 1-3-3.

(a) This reduced figure is due to the Director being on leave out of India for sometime during the year.

* The sum of Rs. 74,804—Special allotment for apparatus for this Institute and Rs. 49,106 cost of X-Ray stores supplied from this Institute to the X-Ray departments during the year are not taken into account when working out the normal "Cost per sitting."

MEDICAL SUPERINTENDENT'S REPORT.

A few selected cases of Tubercular Joint Lesions from Col. Cruickshank's wards were subjected to a judiciously combined radiological treatment, as a contrast to the usual procedure of immobilization of the joints. In these cases, preliminary and subsequent radiographic examinations were made to record the progress. The patient was first put on intensive calcium therapy and was subsequently given a course of ultra short wave treatment followed by X-Ray exposures and recalcifying Diathermy.

The patients were also exposed to general Ultra Violet Radiation. There were quicker signs of reaction and earlier evidence of recalcification. The treatment on these lines is still being carried on.

The several stages, a bone graft passes through were studied by a series of radiographic examinations covering a period of two years. In this, a case of Col. Cruickshank, it was noted that it takes over a year before a graft is absorbed and is replaced by a new growth of bone. The condition is still under observation.

A case of Cancer of Liver in a young Hindu woman 'T' age 25 years, under Dr. M. R. Guruswamy Mudaliyar, was given a course of ultra short wave therapy with simultaneous stimulation of pituitary by X-Ray exposures, followed by an intensive Deep X-Ray therapy to the liver. The reaction was such that after the preliminary course of ultra short wave therapy, the patient refused to submit to any further treatment. After some persuasion, she continued the treatment with most gratifying results. It shows that in selected cases, stimulation of the tissue concerned by ultra short wave therapy, precedent to X-Ray exposure, produces rapid and comparatively satisfactory results. This is an isolated case and the method of treatment, i.e., by short wave therapy to increase the vulnerability of the tissue, prior to X-Radiation, in malignant and non-malignant lesions, is being continued in other cases.

During the later part of the year, radiological examinations of the heart were combined with electro-cardiographic findings; this

combined system for diagnosis gives very gratifying results, one confirming and augmenting the value of the other in a majority of instances.

About a dozen selected cases of tonsillar infection were treated with a combined course of ultra short wave and X-Ray therapy concluding with concentrated exposure to Ultra-violet Radiation of the tonsils. The results have been encouraging and this work is being continued, the results of such combined treatment being followed.

Four cases of mediastinal tumours reacted favourably to deep X-Ray therapy.

One case of mitral lesion was subjected to deep X-Ray therapy. Symptoms considerably improved and the patient is still under observation.

Radon cases.—Towards the end of the year, we were able to command a supply of 40 m.c. per day. This was used chiefly for purposes of superficial therapy in cases attending as out-patients of this Institute; Rodent ulcer readily reacted to this form of treatment.

The article on "Further Observations on Sprue" has been reviewed in the Tropical Diseases Bulletin, London (Vol. 33, No. 1 of January 1936) in the following terms:—

Pillai (M.J.S.) and Murthi (K.N.). Further observations on the radiological and general Findings in Sprue-Calcutta Medical Journal, 1935. October, Vol. 30, No. 4, pp. 225-230.

"In 1931 the authors published a paper on Radiological signs in sprue (see this Bulletin, 1932, Vol. 29, p. 8) and now report other cases examined in the same way. Of 14 cases 8 showed evidence of diverticulitis of the large intestine while the upper part of the alimentary tract was free of inflammation, i.e., what they regard as the ascending type. The remainder of the paper is concerned with discussion, largely hypothetical, on the way in which the condition and associated lesions may be set up, by endocrine or toxic action, but since there has not yet been an opportunity to verify these suspicions by autopsy there is no need at present to consider them more carefully—H.H.S."

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