

of which he gives a vivid picture. Then follows an explanation of waves and wave-motion and a description of the penetrating rays beginning with X- and ending with the Cosmic Rays.

The facility with which the author handles his subject is really noteworthy, his simple, homely language not betraying any labour on his part to explain scientific ideas not easy of comprehension even by an intelligent literate public not conversant with the elements of physical science. We wish that the author may be enabled to effect further improvements by giving more detailed explanations of the elements of physical science and by adding neat illustrative sketches. B. V.

---

**Administration Report of the Madras Government Museum and Connemara Public Library, 1941-42.** (Madras Government Press), Pp. 21. Price As. 6.

Of the four chief duties of a museum, collection, conservation, investigation and exposition, the second necessarily assumes abnormal importance in time of war, especially in a coastal city such as Madras,

leaving much less opportunity than usual for the others. This Report shows, however, that while every effort is being made for the security of the collections (though the public galleries necessarily suffer temporary depletion thereby), progress is nevertheless being made in other directions. Popular lectures have been given and have been well attended in spite of the black-out, educational work in connection with schools has continued, and "Bulletins" have been prepared on "Shells and other Animal Remains found on the Madras Beach" (published), "Amaravati Sculptures in the Madras Government Museum" (published since the Report was prepared), "Catalogue of Roman and Byzantine Coins" and "Iravas and Culture Change". The appendices include a complete list of treasure trove finds for the year and of a good number of notable acquisitions. Reading in the Connemara Public Library has decreased somewhat, but this is fully compensated by, and no doubt in large measure due to, increased borrowing of books. It is good to see that both Museum and Library have been so successful in continuing their service in the face of present difficulties.

---

## INDIAN MEDICAL GAZETTE

### *Special Tuberculosis Number, October 1942*

**N**EARLY the whole of this issue is devoted to publications on tuberculosis by workers in India. There is an editorial on the subject and twelve articles by different workers. Two further articles are held over for the November number. The increasing interest and importance of surgical treatment of tuberculosis is shown by the publication of three articles on thoracoplasty treatment. Benjamin and Frimodt-Moller report on 150 cases operated upon during the last nine years. Clinically, 46.7 per cent. were much improved and 22.7 per cent. improved. In 39.3 per cent. of cases the sputum became negative. The operative mortality was 9.3 per cent. within one week and 14 per cent. within the first two months. A study is made of the influence on the results of age, sex, side affected, general condition, blood examination, type of lesions and size of cavities, and the reasons for any failure in closure of cavities are discussed. It is found that contralateral disease, if not too extensive, is not a contraindication to operation. The need for the co-operation of different agen-

cies in arranging for thoracoplasty treatment is stressed. The type of operation now used is the modern type performed in two or three stages, two or three ribs being removed each stage, the two upper ribs being removed first.

S. K. Sen describes in detail the development of thoracoplasty operations and the technique of the modern operation, the article being well illustrated. Of twenty-one cases operated on, the mortality rate was 14.25 per cent. and in general the results have been good.

G. Samuel writes briefly on ten patients treated by bilateral thoracoplasty with no mortality and "very encouraging results".

Artificial pneumothorax is discussed in two articles. P. K. Sen and K. N. De present the analysed records of 500 cases treated as out-patients (because of the lack of sufficient inpatient accommodation) at the Medical College, Calcutta, with particular reference to the danger to the contralateral lung. In theory this danger is serious. The analysis showed that of the 500 cases before treatment the contralateral



lung was normal in 270 and affected in 230. The normal lung developed lesions in 23 per cent. of cases during treatment. The affected contralateral lung improved in 33.5 per cent., remained stationary in 39 per cent. and progressed in 27.4 per cent. The results are not unsatisfactory. The influence of age, sex, type of lesions, etc., on the results of treatment are discussed.

G. Samuel discusses extra-pleural pneumothorax treatment and the frequency with which infection occurs in the extra-pleural space. These infected pockets are best treated by thoracoplasty, and two such cases are reported with good results. Death occurred in two other cases not operated on.

A. C. Ukil discusses the pathology, symptoms, diagnosis, treatment and prognosis of intestinal tuberculosis. The disease is found to be rarely primary and is usually secondary to tuberculosis of the lung. The importance of early diagnosis, in which X-ray examination plays an important part, is stressed.

Riaz Ali Shah analyses the findings on 973 cases of tuberculosis in North India and compares his findings of those of a similar analysis of 2,021 cases made in somewhat different circumstances by Benjamin in South India. "Benjamin's results led him to the conclusion that in 'Indian patients the disease is of a very serious type; it is acute, rapidly developing, with little tendency to show a natural resistance and healing'. That the disease prevailing among our people is predominantly acute in type seems to be well established. The present study confirms it. But the very serious view that Benjamin has taken does not seem to be justified in the population of India generally." In the discussion a view is expressed that the relative severity of tuberculosis in India is caused not by first-infection tuberculosis occurring in adult life, but chiefly by environmental factors.

Benjamin discusses the after-histories of tuberculous patients after treatment, in view of the statement made by some workers in other countries that "the prognosis of the average case of pulmonary tuberculosis has not materially changed during the past thirty years." The records of 3,945 patients, five years after treatment are analysed, but 39 per cent. of patients were untraced. The cases are grouped in four five-year periods from 1916-1920 to 1931-1935.

"While immediate results of treatment have shown definite improvement in all the five-year periods since 1915, a corresponding improvement in after-histories is not observed except that all the five-year periods since 1920 show better results than the period of 1915-1920."

The proper after-care of patients is shown to have a definite influence on survival.

S. K. Mallik, Het Ram Aggarwal, and Ram Lal Dua report on an investigation of the types of bacilli causing extra-pulmonary tuberculous lesions in the Punjab, such lesions in other countries being commonly due to the bovine type of organism. In the Punjab, however, of 39 strains of bacilli isolated from such lesions, 37 on inoculation into rabbits gave the typical human type of reaction. No bacilli of bovine type were isolated.

I. E. J. David writes an account of the work of the tuberculosis clinic, Nagpur, and thinks that such work can be an important agency in the control of tuberculosis in India. He emphasises, however, how much the work needs to be extended.

B. S. Kanga, however, writing from Bombay, considers that such lines of work accomplishes little or nothing, and recommends that in cities, tuberculous patients and their families shall be isolated in health chawls providing separate accommodation and proper medical supervision for the patients and for their families.

C. L. Sahni reports on a tuberculin survey in Sialkot town. Six thousand four hundred and thirty-six children in 32 schools in the town were tested. The details of the technique are given and the results of the test are analysed. The incidence of positive results rose from 17.7 per cent. in children aged five, to over 40 per cent. in those over seventeen. Practically at all ages, girls gave a higher incidence of positive results. The proportion of positive results was higher in schools in areas with poor sanitary conditions, but in one good residential school for girls in a good situation, the incidence was abnormally high. The positive results were more common in Muslims and Christians than in Hindus.

The reports section abstracts from the reports of the King Edward VII Sanatorium, Bhawal, for the year 1941, and the Third Annual Report of the Tuberculosis Association of India for the year 1941.

J. LOWE.