

in three clinics 66,085 out-patients attended, of whom 1,403 received artificial pneumothorax treatment. The Dabirpura Clinic, in addition to its other activities, carried intensive propaganda by home visiting, examined 1,748 contacts, x-rayed 4,035 patients and tested 2,672 sputum. All laboratory and x-ray examinations were done free of charge. The Hyderabad Tuberculosis Association was affiliated to the Central Association at Delhi during the year.

Anti-rabic treatment was given to 1,703 cases at the Chemical and Bacteriological Laboratory and at the 15 district headquarter hospitals.

Among other activities may be mentioned numerous diet surveys which showed multiple deficiencies, medical inspection of schools, maternity and child welfare work and town improvement and village development schemes. To provide adequate maternity relief four Model *Dais* Training Units have been established under the patronage of Her Highness the Princess of Berar. A scheme is now before Government for improving the sanitary conditions in villages. The City Improvement Board have spent, so far, Rs. 87,30,661 in clearing 1,000 acres of slums in Hyderabad and have several schemes in hand. The programme of constructing model houses is going on; in all 3,900 houses have been built at the cost of Rs. 47 lacs.

The report is an account of growth and progress, and shows the interest H.E.H. the Nizam's Government takes in health matters.

Correspondence

FLUORINE AND FLUOROSIS

SIR,—With regard to your remark 'This has led to the suggestion that non-toxic amounts of sodium fluoride may be added to drinking water for the prevention of dental decay' in the editorial of June number 1944, I wish to draw your attention to the fact that the use of fluorine in dental treatment is in vogue already. A good account was published by Prof. E. H. Lukmsky, Director, Stomatological Clinic, First Moscow State Medical Institute (fluorine cure for exposed dentine and atrophy of alveolus. *Journal of the Indian Medical Association*, Vol. X, page 483, 1941).

N. J. MOJUMDER.

29, CHAKRABERIA LANE,
CALCUTTA,
23rd August, 1944.

[Note.—The correspondent has missed our point. Numerous papers have appeared on the value of fluorine in dental treatment. Our reference was, as stated, to the addition of fluoride to drinking water (possibly to public water supplies) for the prevention of dental decay.—EDITOR, *I. M. G.*]

PYROGENIC REACTIONS FOLLOWING INTRAVENOUS SALINE INFUSIONS

SIR,—I was interested in the paper entitled 'Pyrogenic reactions following intravenous saline infusions' by Drs. B. M. Paul and B. C. Chatterjee in the July issue of the *Indian Medical Gazette* (Vol. LXXIX, No. 7, p. 304). Nine years ago in the surgical wards of the Mayo Hospital, Lahore, I had occasion to give a particularly large number of intravenous saline infusions for a prolonged period. The much dreaded rigor appeared in not a few of our cases. At that time we were not aware of the results of researches carried out on a high scientific plane in later years, and referred to in the above-mentioned paper. We, therefore, like everyone else at that time incriminated successively, and later collectively, the speed with which the infusion was given (too slowly or too rapidly), the

temperature of the saline (too hot or too cold), contaminated distilled water and so on. It, therefore, became the rule for a house surgeon to prepare the infusion himself with fresh doubly-distilled water, and to give it so as to obviate all the above-mentioned factors, which were supposed to cause the rise of temperature. In spite of all that we did, and we did all that was humanly possible, cases of rigor still occurred. The routine treatment for this complication, apart from hot-water bottles, blankets, etc., was to inject subcutaneously 5 minims of 1:1,000 adrenaline hydrochloride. Later we started to add that quantity of the solution to the saline infusion prior to its injection. My impression is that we seldom, if ever, got rigor complication afterwards. Unable, in the present sphere of my work, to put this fact on a sound scientific basis, may I suggest to the writers of the above-mentioned paper to investigate the truth of this admittedly empirical remedy? In the matter of saline infusion which is unquestionably of proved efficacy, and especially when due to diverse reasons hermetically sealed pyrogen-free ampoules of saline may not always be available, it may perhaps be worthwhile to know whether the remedy suggested above has, in point of fact, any scientific basis.

M. A. SHAH, M.S.

DEPARTMENT OF
ANATOMY, KING EDWARD
MEDICAL COLLEGE, LAHORE,
8th August, 1944.

PHENAMIDINE IN THE TREATMENT OF KALA-AZAR

SIR,—During the last five months I have been testing the therapeutic efficiency of a new diamidine compound, 4 : 4'-diamidino-diphenyl-ether di-(β -hydroxyethane sulphonate), (phenamidine, M&B 736), in the treatment of kala-azar at the Calcutta School of Tropical Medicine. So far 16 'ordinary' cases of kala-azar have completed the treatment with this drug, and it has been possible to obtain a clinical cure in every case. By clinical cure is meant that after specific treatment the patient became afebrile and remained so, the size of the spleen decreased markedly, the blood picture improved up to the normal level for the population, and there was a distinct gain in weight. As with other diamidines, the temperature came down to normal in most cases after the completion of a course of injections.

As in all these cases the treatment has been finished only recently, it is not possible yet to ascertain whether the cure has been permanent or not. But from the immediate results it is justifiable to conclude that the drug has a fair degree of anti-kala-azar activity.

The dosage required to bring about a clinical cure was about twice the amount required with diamidino stilbene (stilbamidine, M&B 744). There has not been any very unpleasant reaction after the intravenous injections of phenamidine. The complete results of treatment of kala-azar with this drug will be published after a follow-up of the series of cases treated, six months or more after their discharge from the hospital.

P. C. SEN GUPTA, M.B. (Cal.),
Officer-in-charge, Kala-azar Research Department, Calcutta School of Tropical Medicine.

CALCUTTA,
7th September, 1944.

PROFESSOR SIR RAM NATH CHOPRA AND THE GROWTH OF PHARMACOLOGY IN INDIA

SIR,—For the preparation of a review, I was looking through the 1942 volume of the *Indian Medical Gazette*