YAWS IN BENGAL

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Yaws is not new in India. But the medical Profession in general has not yet shown any degree of consciousness though for the last few years the Anti-Yaws campaign has been launched in full swing with the help of W. H. O./U. N. I. C. E. F. Today the Himachal Pradesh, Madya Pradesh, Andhra Pradesh and Orissa have taken Anti-Yaws Campaign Programme with a view to eradicate this crippling non-venereal form of treponematosis with International help. In 1934, Dr. Ahsan Siddiq, Assistant Health Cfficer of the then Hyderabad State first reported the existence of Yaws in Hyderabad. In Madhya Pradesh, similarly in 1936, Mr. Hyde the then Administrator of Bastar District reported cases of Yaws. The condition in Orissa was focussed by Dr. Verrier Elwin, D. Sc. (Oxen), F. N. I., F. R. A. I. that Yaws is highly prevalent amongst the 'Adivasis'. But the report of Dr. N. C. Dey, the then Sub-Assistant Surgeon while on duty in a Leprosy Survey work in Kamrup District of Asssm noticed rather a high incidence of Yaws and his excellent report was probably ignored by the health authorities as no mass survey programme till today were done nor any further report was published on the effect of treatment. Powel (1894) was first to report the incidence of Yaws of 44 cases amongst the tea-garden workers of Sylhet and Cachar. The condition then prevailing in the area was horrible. It is said one teagarden worker from Ceylon was responsible for all the cases. In 1923 Powell after an observation of about 230 cases found out that Yaws was introduced into Assam through the hilly adjoining areas of Burma. Knowles (1923) also published report of Yaws amongst people from Cachar and treatment at School of Tropical Medicine at Calcutta. Chopra (1928) also reported treatment of Yaws cases coming from Singhbhum.

Yaws has not been reported before in Bengal. Dr. C. C. Sanyal (1956) while publishing his anthropological work noted that the 'Adivasis' (toto tribe) residing in Jalpaiguri (a Northern District in the State of West Bengal) have been suffering from yaws and not from leprosy as was previously supposed. He mentioned also that his conclusions were based on a survey done in 1950. But the survey was not done as it should have been. The Government of West Bengal had established a mobile Dispensary Wing cum V. D. Unit for Tribal Welfare in Jalpaiguri stationed at Madarihat in 1957, which started work in early 1958 under Director of Health Services, West Bengal.

The Medical Officer (R. N. B,) during his routine visit to Totopara sub-centre discovered that most of the adult and adolescent population have been suffering from a crippling disease with or without active ulcer and having a seasonal

variations. Taking it to be Yaws as from previous experience started taking blood for S. T. S., Biopsy, Case Notes, photos and other datas during the period of 1959-60 which were sent to Central V. D. Laboratory at Calcatta. Yaws were diagnosed from the materials thus collected and single dose treatment were instituted with good response and followed up in a limited scale for want of suitable staff, arrangement and inaecessibility of the area complicated by the habits of the populace.

This report thererefore is not complete and final one as much has to be achieved on a larger scale. It is rather a pointer to show that there are all the factors to foster the growth and spread of this maiming disease and to find out the incidence in West Bengal there should be a concerted effort covering all the "Adivasi". Incidentally it may be mentioned here that cases of Pinta, another non-venereal treponematesis, are also met with (Ghosh and Ghosh, 1959) in Calcutta. While giving the figures of School of Tropical Medicine, Calcutta the percentage of Yaws cases attending the outdoor Dr. L. M. Ghosh (1948) had mentioned the figure as 0.004%.

Before passing on to the individual case histories we would very much like to give some geographical, metereological and social conditions relating to 'Totos' (the affected tribes or adivasis) of Jalpaiguri District.

Dr. Sanyal (V. Supra) mentioned 'The totos are a primitive tribe. At present they live on a small hill area at the feet of the Himalayas just to the south of the border line between Bhutan and West Bengal. The total population as ascertained in 1951 census is 321 living in 69 different houses. The area of entire Toto country callad at present Totopara is 1,996.96 acres. The flat nose, small eyes and other features are quite evident of their mongolian origin though the colour of the Skin map is "rather on the dark side". As is common with other 'adivasis' (todas of Nilgiris etc.) the 'Totos are endogamous' and never leave their abode to move to civilised areas of tea-gardens. Social taboos were enforced on those who seek employment to the tea gardens. Dr. Sanyal in his painstaking anthropologicai and social study of this vanishing tribe observed that 'there is evidence of other toto settlements in the Western Dooars, a tract of country spreading from the river Teesta on the West up to the river Sankoh on the east, within the district of Jalpaiguri in West Bengal." The present site of the village (Totopara) has been amply described as follows—"The Northern boundry of the present Totopara is the southern boundry of Tading. It is within Lat 89°20' and long 26°50' This Toto settlement is situated at the junction of Bhutan and Jalpaiguri within the jurisdiction of Madarihat P. S. It may be that the totos at first settled in the plains and subsequently shifted to the more secluded and healtheir place on the hills. The present site is absolutely unfit for any cultivation of paddy, jute and tobacco. Until recently the totos were vanishing tribe but at the present village they are slowly increasing in number. Dr. Sanyal quoted Mitra's book (1953).

The Tribes and Castes of West Bengal, the reason of isolationism of the 'adivasis' as "Whenever two civilisations meet specially on different levels, there is a tendency on the part of the lesser culture to work in two directions. A part of it is attracted by the superior culture and imitates it. The other and more conservative past is repelled by the danger of absorption, draws it horns in, and makes every effort to preserve its identity intact by isolation, concervatism and refusal to have any truck with the superior culture". Totos probably were also guided by this latter idea.

Totos live on the base of three small hillocks united by the name Totopara or Toto busti–District Jalpaiguri, Police Station Madarihat on the West bank of the river Torsa. The heights of the hillocks vary from 750' to 1,250' above the sea level at Lat 89°20' and Long 26°50 between Torsa river and Bhutan border along the Titi reserve forest.

The unit (Mobile Dispensary Wing cum V. D. Unit) used to take the route from Madarihat their Head Quarter via Huntapara Tea Estate. After crossing the Titi river going by a kutcha road maintained by forest department through Titi forest and by the side of Ballalpuri Panchayet Union, This kutcha road is Jeepable in parts, only in dry season. From May to December, the only means is to go on foot or pony. The road from Madarihat to Huntapara Tea Estate is a gravelled one maintained by District Board.

One can go from Birpara Via Ramjhera Tea Estate to Huntapa Tea Estate and then following the same course. The other way of approach is from Hashimara Rly. Station via Jaygaon and Dalsinghpara then crossing the Torsa river from east bank–a better way in rainy season.

The totos live in a two roomed small house with a opened veranda in front made of bamboo with a raised platform. Cooking and sleeping are done in one room, other used as Store–room. Domestic animals, poultry are kept under the platform. Pig acts as scavengers of the excreta which falls below through hole of living room. In winter they keep warm by keeping a fire in the room and few use cheap blankets. Bamboo and weed are extensively used in various house hold needs.

Until very recently the agriculture used to follow the method of "Jheem" cultivation i. e. cutting down big trees and burning down the shrubs and jungles followed by plough and harrow. Now they have even used to improved method of agriculture by adventures of Government.

The food is peculiar in the sense that the Totos do not know to prepare 'chapati' and had never used any cooking fat. A fried food is almost unknown. Maize, various roots, dried meat, fish, rice, jack fruits are the chief courses. Home made liquor is prepared by fermenting maize or mahua and is very popular.

Drinking water is obtained through split bamboo pipet sometimes overlong distance from springs in the hill in big broad bamboo container. Recently Government made improved arrangement of bringing water from a main source high in hill by metal pipes at the door steps. The typical dress is a piece of plain cloth around the waist bearing the lower portion of legs bare.

CASE NOTES

Case 1. N. T., 50 female. Patchy depigmented palms and soles extending on the lateral and medical surface of foot with itchy vesicular eruptions in the palms and soles for five years and linear crack like ulcers in the palms and inter plalangeal joints, Some of which had fibrosed and as a consequence the hands are crippled due to contracture. Seasonal variation more in summer. Also present in mother and grandmother. Duration—15 years. V. D. R. L. reactive 1 : 16 Treated with single injection of Bismuth (aqueous).

Case 1. Before Treatment

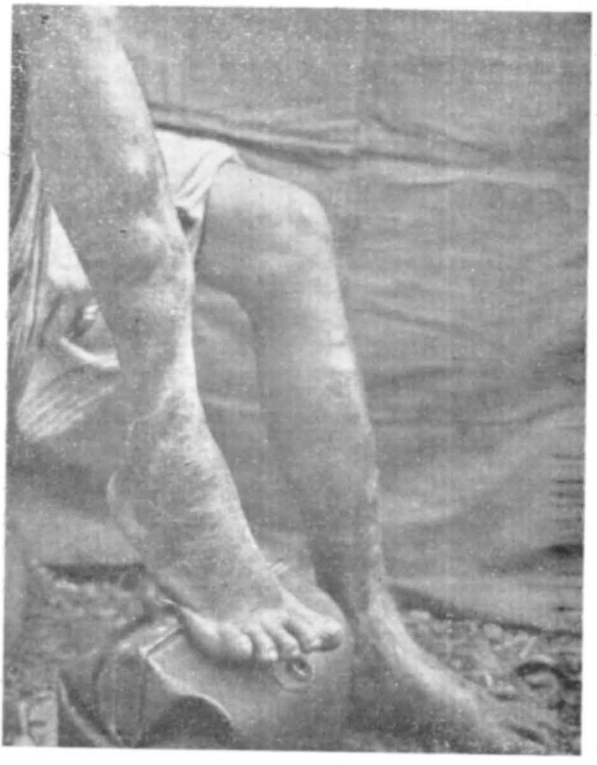
Case 2. C., 67, F. She has a peculiar leonine face with no stigma of leprosy. Over the planter surface there were multiple elevated purulent ulcers associated with fever, pain, local oedema–5 years duration, extensive fibrosis on dorsum of foot from healed ulcers causing distortion of the shape of foot. V. D. R. L. reactive 1 : 16. Treated with single injection of Bismuth (aqueous) preceded by a single injection of Procain penicillin G (3 + 1).

Case 3. C. T. 25, married (10–years no issue) male. Peculiar ulcers, fixed to the bones of the legs with serum like exudates preceded by scaling and desquamation with sabre tibia except the areas narrowed by fibrosis due to ulcers and

tissue destruction. Lymphglands enlarged all over the body, discrete, painless. He had been suffering since childhood. V. D. R. L. reactive 1 : 16. Single injection of Bismuth cleared the active stage.

Case 4. L. T. 4, female. Patchy Depigmentation of palms and flexer aspect of hands. Crippled fingers due to crack-like ulcers in the interphalangeal joints followed by fibrosis. Active fissure like ulcers in the interphalangeal groove preser t with red base and exudate. No other members of the family were found to be infected. V. D. R. L. reactive 1 : 32. No lesions after 2 injections of Bismuth.

Case 5. T. T. 36, female. Complaints and findings same as case 4. But V. D. R. L non-reactive, palpable lymphatic glands all over the body. Complete absence of symptoms after Bismuth (3 injections) and Acetarsol tablets. Husband, parents, sisters were also suffering. All of them were symptomatically cured after Bismuth (3 injections) except herself all were V. D. R. L. reactive 1 : 32 dils.



Case 3. After Treatment

Case 6. J. R. 28, female, Nepali. Near the left ankle there was a large $\frac{1}{2}''$ diameter papillary mass with 'itching'. No evidence of any such disease in her family. She came to the area about 3 years ago and shortly after she is suffering. Patient refused blood, histological examination and treatment.

Case 7. J. T. 30, male. Polypoidal growth about 1.5 cm. diameter not much raised than the surrounding skin lined by ulcerated fissure over the right sole near the base of the middle toe. The patient got difficulty in walking. He also had patchy depigmentation on the palmer aspects with deep seated vesicular erruption and patchy excoriation of both hands. There were also teno-synovitis of the left extensor tendons over the wrist. Lymphglands all over the body enlarged, discrete but no tenderness were present. Parents, two brothers also were diseased but refused examination. V. D. R. L. 1 : 8 positive-injection of Bismuth cleared him of his ailments. Biopsy showed treponema on Levaditi's stain from the growth.

Case 8. S. T. 10, male, duration 5 years. Multiple painful papular growth on both the soles-itching present. On the right sole there was thickening and keratinisation with little superficial destruction. Glands all over the body enlarged. Parents and cousin sero-positive. V. D. R. L. 1 : 32 positive. Treated with Bismuth injections.

Case 9. R. 8 years male—same as above.

Case 10. M. T. 40 male, priest of the Totapara. Duration since childhood. There were massive areas of scaling of the lips of all the toes along with multiple fissures and crack like ulcers. Over the post-lateral surface and planter surface of right heel, there was a papillary growth surrounded by crack-like ulcers with red base and little exudate. Tenosynovitis present of the extensor tendons of both the wrists. Histopathological section showed Treponema on special staining V. D. R, L. 1 : 8 positive. All the members of the family were found to be serologically positive. Treated successfully with Bismuth.

Case 11. G. T. Age 20 male. Itching ulcers on sole of foot painful during walking with seasonal variation since childhood. Big accuminate papilloma $\frac{1}{2}''$ diameter surrounded by linear crack like ulcer with red base serum like exudate. Patchy excoriation of thickened skin of palm of both hand. Depigmentation present. Scaling of skin on both legs. Glands enlarged, painless all over the body. No cardiovascular, nervous lesion. Section shows—Trepanoma on special staining. V. D. R. L. positive 1 : 8-3 injections of Bismuth cured him.

Case 12. J. Toloni F. 36 Itching ulcers since childhood. Evidence of tissue destruction with narrowing of right leg with extensive scarring. Permanent deformity of ankle joint in plantar flexion by thick fibrous band crossing and raising the little toe. Scarring and tissue descruction found in right left forearm also. There is accuminate papilloma in left leg near the heel surrounded by linear crack like ulcer with slight exudation. Patient unmarried—as she was not liked by males due to her extensive ulcers. V. D. R. L. positive 1 : 16 treated successfully with injection of Bismuth (aqueous) and procaine penicillin. Four injections each.

These cases are only a few of those observed in Totapara. We feel that if a proper survey is made on epidemiological basis this crippling disease can be eradicated from the vanishing tribe within a few years.

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