

CLINICAL NOTES

TUBERCULOSIS AMONGST A SMALL GROUP OF INDIAN IMMIGRANTS

JOHN T. CORBETT, M.B., CH.B., LL.B., M.R.C.S., L.R.C.P.

Wellington

The high incidence of tuberculosis, necessitating treatment in a sanatorium, prompts me to record my experience with a small group of Indian immigrants for whom I was responsible as a general practitioner. At the time of recording this group numbered 22 (16 men, 5 women and 1 child). With the influx of commonwealth citizens into this country, at a time when the control of pulmonary tuberculosis seems well within reach, any possible small pockets of infection become extremely important. Questions have been asked in the House of Commons regarding the possible compulsory examination of coloured immigrants, including chest x-ray, and a certain amount of co-operation has been obtained with some commonwealth countries. This would no doubt eliminate any frank infectious case, but further continued follow-up would be necessary.

Brief clinical details of 10 cases requiring sanatorium treatment follow:

One case was admitted to the sanatorium during 1957 and again in 1959.

Two cases were admitted to the sanatorium during 1958.

Seven further cases were admitted to the sanatorium during 1959.

All came from three houses designated A, B and C, and some had at some time lived in two of these houses.

Case 1. Female, born 15 March 1935. Lived in house A. Admitted to sanatorium 6 Nov. 1957 and again 3 Aug. 1959.

During the last week of August, 1957 this woman complained of symptoms suggestive of a urinary infection, with a low grade pyrexia. Physical examination was negative as was an intravenous pyelogram. Haemoglobin was 73 per cent and E.S.R. 14 mm. fall in one hour. Culture of the urine and guinea-pig inoculation showed tubercle bacilli present in the urine. X-ray of the chest was normal. She was admitted to the sanatorium on 6 Nov. 1957 and after full anti-tuberculosis chemotherapy was allowed home on 7 Feb. 1958, and followed up at the tuberculosis clinic.

In May, 1958 she again complained of urinary symptoms but investigation proved negative.

In Feb. 1959 she was delivered of her 5th child—a breech delivery with minimal assistance. Pregnancy had proved uneventful. The child, a female, weighing 7 lbs. 6½ ozs., was breast fed for two weeks only, but a month after delivery she complained of feeling unwell, had an irritating cough and a low grade fever with sweating at night. X-rays of the chest were negative. She was admitted to hospital for investigation, where she remained for some weeks. The only significant findings were a raised E.S.R. and an iron deficiency anaemia, with haemoglobin 54 per cent. During her stay in hospital no definite cause for her pyrexia was found. She returned home very much improved in general

health on 13 May 1959. At that time further x-rays of the chest were reported normal.

In July, 1959 she had a further febrile illness, developed a right basal pleural effusion and was admitted to the sanatorium on 3 Aug. 1959. She again responded well to chemotherapy, and returned home on 6 Jan. 1960 apparently in good health. She has now left this district and is to be followed up for supervision purposes.

Case 2. Male, born 16 Jan. 1928. Lived in house A. Admitted to sanatorium 28 March 1958.

This man was a brother of case 1. He first attended with enlarged glands in the neck and an ischio-rectal abscess. The latter necessitated admission to hospital and there x-ray of the chest showed a minimal infiltrate at the right apex. A diagnosis of glandular tuberculosis was made. With sanatorium treatment and chemotherapy the glands in the neck settled down, and the lesion in the chest showed no signs of activity.

Case 3. Male, born 7 Sept. 1931. Lived in house B. Admitted to sanatorium in April, 1958.

This man was treated in the sanatorium for tuberculous cervical glands. These resolved with chemotherapy. There was no lung lesion.

Case 4. Male, born 2 Sept. 1927. Lived in house A. Admitted to sanatorium 15 Jan. 1959.

This man attended the mass radiography unit, and was found to have opacities in the left upper zone suggestive of active tuberculosis with cavitation. He had a two months history of cough, expectoration, hoarseness, lassitude, loss of weight and night sweats. His sputum contained tubercle bacilli, and, in fact, he was the only case with a positive sputum. He was admitted to the sanatorium where he remained for eight months with routine chemotherapy. In January 1960 his x-ray films were practically within normal limits.

Case 5. Male, aged 32 years. Lived in house A. Admitted to sanatorium 31 March 1959.

This man was admitted to the sanatorium with a large right pleural effusion, the left lung showing no abnormality. He remained in the sanatorium for four months on routine chemotherapy, and on discharge the chest x-rays showed only slight thickening of the pleura at the right base. He remained well under supervision at home, having follow-up chemotherapy, and has since returned to India.

Case 6. Female, born 6 Sept. 1936. Lived in house A. Admitted to sanatorium 2 July 1959.

This woman is the sister-in-law of case 1. Because she seemed unwell and was losing weight, she had had a mass radiography examination at the beginning of March, 1959, and a large film on 15 March 1959 was normal. She complained of an irritating cough and vague pains in the chest. Clinical examination was negative. She was admitted to hospital for investigation and later transferred to the sanatorium. She had by that time, developed a wedge-shaped opacity at the right apex. She remained in the sanatorium, with routine chemotherapy for six months, and on discharge x-ray films showed only minimal mottling at the right apex.

Case 7. Male, born 7 June 1931. Lived in house A. Admitted to sanatorium 6 July 1959.

This man attended in March, 1959, with a small perianal abscess and a posterior anal fissure which healed well. In June 1959, he complained of nocturnal sweating and general lassitude. His Mantoux test was positive and x-ray of the chest showed minimal mottling at the right apex. He was admitted to the sanatorium and responded well to routine chemotherapy.

Case 8. Male, born 17 April 1931. Lived in house B. Admitted to sanatorium 27 July 1959.

This man's chest x-ray in May 1959 did not reveal any abnormality. He was referred to the chest physician in July 1959 with a harsh cough and nocturnal fever. He looked ill, had lost weight, but clinical examination of the chest was negative. His Mantoux test was positive, and an x-ray film showed an effusion

into the right interlobar fissure. His febrile condition was protracted, and finally settled after varied chemotherapy. He did not gain weight while in the sanatorium, and still gives an impression that careful and continuous follow-up may be necessary. His sputum is negative for the tubercle bacillus, and his x-ray films are satisfactory.

Case 9. Female, born 12 Jan. 1933. Lived in house C. Admitted to sanatorium 13 Oct. 1959.

This woman had a premature labour at 30 weeks on 16 June 1959. The baby, a male, weighed 2 lbs. 14 ozs. The birth took place in the Barratt Maternity Home, Northampton, so that the baby could be cared for at once in the premature baby unit. The next day the mother was transferred to the general practitioner unit, and in the evening had a temperature of 103°F. The fever settled during the following two days, but occasionally during the next ten days the patient complained of some pain in the right iliac fossa with a little tenderness. She went home on 27 June, 1959, the baby remaining in the premature baby unit. Examination early in August 1959 did not reveal any abnormal signs and the patient had no complaints.

On 14 Sept. 1959, the husband reported that his wife had an evening temperature of over 100°F, with sweating, and frequency of micturition. The urine contained a little albumen, but was not infected. She was admitted to hospital on 18 Sept. 1959, when the evening temperature was 104°F. Chest x-ray on that day was normal, as it had been four weeks previously, and in February 1959. The abdomen was curiously distended with a sausage shaped tumour extending up into the right iliac fossa from the pelvis. The haemoglobin had dropped to 64 per cent having been 84 per cent during pregnancy. The E.S.R. was raised, and she continued to run an evening temperature of 102°F., with tachycardia around 110. The white cell count was low. Aspiration of the abdomen produced a little yellow fluid with lymphocytic cytology. Under anaesthesia the uterus was found to be large and incorporated in a pelvic mass which was cystic to the right. Uterine curettings showed widespread evidence of tuberculosis, confirming a suspected diagnosis of tuberculous endometritis and salpingitis. She was transferred to the sanatorium where she made excellent progress with routine treatment and chemotherapy, and the very marked abdominal tumour disappeared. The premature labour and high temperature twenty-four hours after labour raise the question whether the tuberculous infection of the pelvis was present during pregnancy, in this case causing the premature labour at 30 weeks instead of abortion which is more usual.

Case 10. Male, born 16 June 1959. Lived in house C. Admitted to children's sanatorium, 30 Oct. 1959.

This is the child of case 9. At four months was found to have a positive Mantoux test, 1 in 1,000, with some glandular involvement on the right side of the neck, which was considered to be a congenital infection from the mother. The baby was admitted to Peppard Children's Hospital for observation and chemotherapy.

Discussion

That ischiorectal abscess may be tuberculous in origin is well known; two cases (cases 6 and 2) had such an abscess about three months before admission to the sanatorium. The husband of case 1 has also recently had treatment for a very troublesome ischiorectal abscess necessitating a stay in hospital for 8 weeks. Though biopsy and chest x-ray show no sign of tuberculosis, it will be interesting to follow-up this case.

This small group of Indians are all from village communities in Bombay State. There was a high incidence of negative Heaf tests amongst them, and the pulmonary tuberculosis that developed was perhaps not so severe as might have been expected. It is most gratifying to note that in spite of the high admission rate to the

sanatorium out of such a small total—eight admissions taking place during 1959—all have done very well indeed. With the exception of case 3, the chest cases showed a very insidious onset, and seemed more ill than the clinical and x-ray findings suggested. In fact several films were necessary before the disease was revealed. Although all the patients were anxious to co-operate the inability of most of them to express themselves in English proved a great difficulty, case history being usually completely absent. This difficulty was increased by the fact that all had the same surname, and first names quite beyond my power to spell or pronounce. What is more they looked alike until I began to know a few of them well as individuals. The role of the general practitioner in following up and referring these cases for investigation and treatment, and in the field of preventive medicine cannot be too strongly stressed, working always in close and direct co-operation with the consultant chest physicians and the local health authorities.

After the admission of case 3, extreme anxiety was felt that this group might become disseminated through the town, with consequent spread of the disease. The first immigrants in the area were all men, often sleeping in crowded conditions in a few houses they had obtained in the town. By the time the above cases began to receive treatment, more Indians arrived, including wives and the inevitable babies. Further houses were obtained and the original members of the community began to spread, always, unfortunately, with more overcrowding. Careful recording of new addresses became a matter of urgent importance, for the general practitioner was the first to know of movement from house to house. With the aid of the local authority health visitors the contacts were all shepherded to the clinic for chest x-rays. The number actually reviewed in the first instance was 38. Only two of these proved in any way suspicious, and these were eliminated after further follow-up. This review took place in February 1959. From this group there were a further six admissions during 1959—the first only six weeks afterwards.

There was positive sputum from only one patient—case 3—the case picked up at routine mass radiography. As he lived in house A, he may have been the source of infection.

In November 1959, after further cases, a wider survey of the Indians in the town was undertaken by the chest physician. Sixty-two Indians attended, and x-ray films revealed no abnormal findings with the exception of one woman who suffered from asthma. Thirty males were Heaf tested and 20 were positive, and 10 negative. Ten other males were Heaf tested, but did not attend for the reading of the results. Twenty females were Heaf tested; 6 were positive and 14 negative.

All those who were Heaf negative were given B.C.G. vaccination.

Of the positive Heaf test males, 2 were already patients, and had had sanatorium treatment. One child, 18 months old, was found to have a violently positive Heaf test and a gland in the axilla and has been admitted to the Peppard Chest Hospital. One child, aged 6 years, with a positive test but no clinical findings, is under observation. It is hoped that this further more extensive survey, with B.C.G. vaccination of those with a negative Heaf test, may prove the answer to the problem.

The high incidence of disease amongst my small group tempts me to speculate upon the cause, and a few factors spring to mind. Compared with Western standards they live a very communal existence. Besides the overcrowded conditions in their houses they visit each other extensively, and I found many of them to be related. It is probably extremely fortunate that they have tended to form a very closed community. Each room in a house, except the kitchen, becomes a bedroom, and each bedroom will contain at least three single beds for single men, or a double bed for man, wife and child. As a result an ordinary six-roomed house may house 2 or 3 married couples, sometimes with children, besides single men. If, therefore, an infectious case is included the chance of spread is great.

Though some take a fair quantity of milk, many of them live mainly on cereals and vegetables, but I have noted that their feeding habits often change after living here for some months, though they seem to live very economically, saving and sending home fair amounts of money.

They are upset by our cold, damp winters. They often work hard, often in hot dusty atmospheres, and as a result suffer frequent upper respiratory tract infections. With a better diet, climatic conditions might be less important. There can be little doubt, however, that overcrowded living conditions, with consequent possibilities of cross infection is probably the most important factor—all the cases described came from three houses.

Summary

The high incidence of tuberculosis in a small group of Indian patients is described, with brief clinical details of the cases. Attempts to control and confine the disease are described. The importance of overcrowded living conditions is stressed. The necessity for repeated x-ray examination should be noted as each of these cases showing chest disease had had negative films, sometimes only a short period before the necessity for admission to the sanatorium arose. These cases also looked and were obviously ill out of all proportion to the clinical and x-ray findings.

Acknowledgments

I wish to express my indebtedness to Dr G. B. Lord, consultant chest physician and his staff, for their extensive help in supplying me with clinical details of those

patients treated by him, also for the results of the review of contacts in February 1959 and November 1959, and to Miss S. Lehane, consultant gynaecologist to whom I referred Case 9. My thanks are also due to the local authority health visitors who kindly visited the contacts and persuaded them to present themselves for review. Finally, may I say how co-operative I found the patients themselves.

INFECTIOUS MONONUCLEOSIS WITH JAUNDICE AND EXTENSIVE SKIN RASH

(REPORT OF A CASE)

A. E. DE LA T. MALLETT, D.S.C., M.D.
Wimborne Minster

The following case of infectious mononucleosis, which presented clinically as infectious hepatitis and later exhibited an extensive skin rash, demonstrates how the protean manifestations of this disease can lead to confusion in diagnosis.

Case history. A young, unmarried woman, aged 21, complained of malaise, epigastric discomfort, and nausea of approximately two days duration. She had noticed that her urine was "very dark". On examination, the throat was seen to be slightly injected, and a tender tonsillar adenitis was present on the left side. The skin presented a definite icteric tinge, although the sclerae were of a normal colour. The spleen and liver were not palpable or tender. A specimen of urine was found to contain bile (with Fouchet's test). A diagnosis of infectious hepatitis was made.

The patient was not seen again until the fourth day of her illness. The jaundice had now become pronounced, and, in addition, a most extensive skin rash had made its appearance. This consisted of closely-grouped, pin-head sized papules, dark pink in colour, distributed evenly over the extensor and flexor aspects of the trunk and limbs. The face, however, although free from the rash itself, exhibited a dusky erythema broken only by an area of circumoral "pallor", with a sharply defined border, where the deeply jaundiced skin presented a startling spectacle.

Further physical examination at this stage revealed the following additional information:

Fauces: follicular tonsillitis with enlarged and tender cervical glands on both sides. Epitrochlear, inguinal, and axillary glands not enlarged. Liver and spleen not palpable. Slight photophobia. Joints N.A.D. Mental apathy and depression. Heart and lungs N.A.D.

The probability that the case might be one of infectious mononucleosis was now entertained for the first time and a white blood cell examination was accordingly done, with the following results:

Wbc	16,000 per cu. mm.
Neutrophils	23 per cent
Lymphocytes	65 per cent
Large—46 per cent	
Small—19 per cent	
Monocytes	12 per cent

This count confirmed suspicions of the nature of the illness and on the tenth day after the first clinical examination, a Paul-Bunnell test was positive 1 : 112.