**Table 1: Demographic and clinical characteristics of study participants at baseline, according to their follow-up status**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Characteristics** | **Follow-up examination** **(n=326)****(A)** | **No follow-up examination****(n=163)****(B)** | **Died****(n=101)****(C)** | **P-value\*****(B vs A)** | **P-value\*****(C vs A)** |
|  | n | % | n | % | n | % |  |  |
| **Sex** |  |  |  |  |  |  |  |  |
| Male | 95 | 29.1 | 63 | 38.7 | 36 | 35.6 |  |  |
| Female | 231 | 70.9 | 100 | 61.3 | 65 | 64.4 | 0.03 | 0.22 |
| **Age** (years)  |  |  |  |  |  |  |  |  |
| <50  | 51 | 15.6 | 19 | 11.7 | 15 | 14.9 |  |  |
| 50-59 | 115 | 35.3 | 66 | 40.5 | 35 | 34.6 |  |  |
| 60-69 | 123 | 37.7 | 56 | 34.4 | 28 | 27.7 |  |  |
| ≥70 | 37 | 11.4 | 22 | 13.5 | 23 | 22.8 | 0.43 | 0.03 |
| **Education** |  |  |  |  |  |  |  |  |
| Primary completed or less | 90 | 27.6 | 48 | 29.5 | 39 | 38.6 |  |  |
| Junior high school | 63 | 19.3 | 21 | 12.9 | 25 | 24.8 |  |  |
| Senior high school | 93 | 28.5 | 54 | 33.1 | 24 | 23.8 |  |  |
| Tertiary education | 80 | 24.5 | 40 | 24.5 | 13 | 12.9 | 0.32 | 0.02 |
| **Smoking** |  |  |  |  |  |  |  |  |
| Current | 37 | 11.4 | 26 | 16.0 | 20 | 19.8 |  |  |
| Past | 82 | 25.2 | 50 | 30.7 | 29 | 28.7 |  |  |
| Never | 207 | 63.5 | 87 | 53.4 | 52 | 51.5 | 0.89 | 0.04 |
| **Body mass index** |  |  |  |  |  |  |  |  |
| <23.0 | 84 | 25.7 | 37 | 22.7 | 35 | 34.6 |  |  |
| 23.0-24.9 | 57 | 17.5 | 37 | 22.7 | 19 | 18.8 |  |  |
| 25.0-29.9 | 132 | 40.5 | 66 | 40.5 | 39 | 38.6 |  |  |
| ≥30.0 | 53 | 16.3 | 23 | 14.1 | 8 | 7.9 | 0.52 | 0.11 |
| **BCG scar** | 212 | 65.0 | 102 | 63.0 | 60 | 59.4 | 0.65 | 0.30 |
| **DM duration**  |  |  |  |  |  |  |  |  |
| <12 months | 55 | 16.9 | 41 | 25.1 | 16 | 15.8 |  |  |
| 1-5 years | 131 | 40.2 | 59 | 36.2 | 39 | 38.6 |  |  |
| 6-15 years | 111 | 34.1 | 49 | 30.1 | 35 | 34.7 |  |  |
| >15 years | 29 | 8.9 | 14 | 8.6 | 11 | 10.9 | 0.19 | 0.93 |
| **HbA1c** |  |  |  |  |  |  |  |  |
| <7% | 95 | 29.1 | 42 | 25.8 | 26 | 25.7 |  |  |
| 7-9.9% | 152 | 46.6 | 65 | 40.5 | 36 | 35.6 |  |  |
| ≥10% | 79 | 24.2 | 54 | 33.7 | 39 | 38.6 | 0.08 | 0.02 |
| **DM complications** |  |  |  |  |  |  |  |  |
|  No complications | 104 | 31.9 | 40 | 24.5 | 11 | 10.9 |  |  |
|  Microvascular  | 164 | 50.3 | 89 | 54.6 | 63 | 62.4 |  |  |
| Macrovascular  | 16 | 4.9 | 12 | 7.4 | 4 | 4.0 |  |  |
| Both micro- and macrovascular | 42 | 12.9 | 22 | 13.5 | 23 | 22.8 | 0.31 | <0.001 |
| **DM medication** |  |  |  |  |  |  |  |  |
| Insulin  | 62 | 19.0 | 34 | 20.9 | 40 | 39.6 | 0.63 | <0.001 |
| Metformin | 201 | 61.7 | 89 | 54.6 | 44 | 43.6 | 0.13 | 0.001 |
| **Hospitalised in last year** | 28 | 8.6 | 20 | 12.3 | 22 | 21.8 | 0.20 | <0.001 |
| **Chest x-ray** |  |  |  |  |  |  |  |  |
| Normal | 201 | 62.4 | 89 | 54.9 | 42 | 42.0 |  |  |
| Abnormal – suggestive active TB  | 17 | 5.3 | 9 | 5.6 | 16 | 16.0 |  |  |
| Abnormal, not TB | 104 | 32.3 | 64 | 39.5 | 42 | 42.0 | 0.57 | <0.001 |
| Not available | 4 |  | 1 |  | 1 |  |  |  |
| **IGRA result** |  |  |  |  |  |  |  |  |
| Positive | 138 | 42.3 | 50 | 30.7 | 43 | 42.6 |  |  |
| Negative | 181 | 55.5 | 105 | 64.4 | 48 | 47.5 | 0.02 | 0.59 |
| Indeterminate/Not available | 7 | 2.2 | 8 | 4.9 | 10 | 9.9 |  |  |
| **TB status** |  |  |  |  |  |  |  |  |
| Not TB | 310 | 95.1 | 155 | 95.1 | 85  | 84.2 |  |  |
| Possible TB | 16 | 4.9 | 8 | 4.9 | 16 | 15.8 | 0.58 | <0.001 |

Abbreviations: BCG=Bacillus Calmette-Guerin; DM=diabetes mellitus; IGRA=Interferon Gamma Release Assay; IQR=interquartile range; SD=standard deviation; TB=tuberculosis;

\*Chi-squared test

**Table 2: Characteristics of patients diagnosed with tuberculosis already**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Patient** | **Age** | **Sex** | **Place of TB diagnosis** | **Method of diagnosis** | **Baseline IGRA** | **Symptoms at follow-up examination** | **Chest x-ray at follow-up examination** | **Study TB definition**  | **Months from TB diagnosis to follow-up date** | **Treatment status** |
| 1 | 64 | M | Private practitioner | Lump in neck. Was on TB medication for 2 months | Negative | Weight loss | Abnormal – probable active TB | Possible | 7 | Completed |
| 2 | 62 | F | Tandem study | AFB negative; Culture negative; Coughing blood; CXR suggestive TB | Positive | No | Abnormal – probable active TB | Possible | 12 | Completed |
| 3 | 59 | F | Tandem study | AFB positive; Culture positive | Positive | Chest pain | Normal | Definite | 16 | Completed |
| 4 | 60 | F | Private hospital | AFB negative; no culture; CXR suggestive TB | Negative | Night sweats | Abnormal, not TB | Possible | 1 | Ongoing |
| 5 | 60 | F | Private hospital | AFB positive; no culture | Negative | Breathless | Abnormal – probable active TB | Probable | 9 | Completed |
| 6 | 56 | F | MDR clinic Public Hospital | AFB, Culture & Xpert positive.  | Positive | Not assessed  | Not done | Definite | 5 | Ongoing treatment for 17 months |

Abbreviations: AFB=acid fast bacilli; CXR=chest x-ray; IGRA=Interferon Gamma Release Assay; TB=tuberculosis; Definite TB=*M. tuberculosis* culture or Xpert MTB/RIF positive or on anti-TB medication/already treated for TB; Probable Tb=TB symptoms, chest x-ray suggestive of TB and AFB positive but culture negative.

**Table 3: Characteristics of patients diagnosed with tuberculosis from follow-up examinations**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Patient** | **Age** | **Sex** | **Symptoms** | **Chest x-ray** | **AFB** | **Culture** | **Baseline IGRA** | **Study TB definition** |
| 1 | 43 | M | No symptoms | Abnormal – possible active TB | Negative | Positive | Positive | Definite |
| 2 | 54 | F | Cough; coughing sputum; weight loss | Abnormal, not TB | Negative | Positive | Positive | Definite |
| 3 | 52 | F | Cough; coughing sputum; weight loss; chest pain | Abnormal – probable active TB | Positive | Positive | Positive | Definite |
| 4 | 55 | F | No symptoms | Abnormal – probable active TB | Negative | Positive | Positive | Definite |
| 5 | 57 | F | Coughing sputum; weight loss | Abnormal – possible active TB | Positive | Negative | Positive | Probable |

Abbreviations: AFB=acid fast bacilli; IGRA=Interferon Gamma Release Assay; TB=tuberculosis; Definite TB=*M. tuberculosis* culture or Xpert MTB/RIF positive or on anti-TB medication/already treated for TB; Probable Tb=TB symptoms, chest x-ray suggestive of TB and AFB positive but culture negative.

**Table 4: Tuberculosis (TB) case definition of all patients followed up (n=326)**

|  |  |  |
| --- | --- | --- |
| TB case definition category | Cases | % (95% CI) |
| Definite TBa | 4 | 1.2 (0.34-3.1) |
| Probable TBb | 1 | 0.3 (0.008-1.7) |
| Possible TBc | 33 | 10.1 (7.1-13.9) |
| Already diagnosed  | 6 | 1.8 (0.7-4.0) |
| Not TB | 282 | 86.5 (82.3-90.0) |
|  |  |  |
| Definite, probable or already diagnosed | 11 | 3.4 (1.7-6.0) |
|  |  |  |
| **Baseline IGRA**  |  |  |
| Positive (n=138) | 8 | 5.8 (2.5-11.1) |
| Negative (n=181) | 3 | 1.7 (0.3-4.8) |
|  |  |  |
|  |  | Cases per 1000 person-years (95% CI) |
| Definite, probable or already diagnosed | 11 | 9.85 (4.03-15.68)  |
| **Baseline IGRA** |  |  |
| Positive | 8 | 17.13 (5.25-29.00), |
| Negative | 3 | 4.79 (-0.63-10.21) |

a Definite TB=*M. tuberculosis* culture or Xpert MTB/RIF positive or on anti-TB medication/already treated for TB; b Probable Tb=TB symptoms, chest x-ray suggestive of TB and AFB positive but culture negative.

C Possible TB: TB symptoms and/or chest x-ray suggestive of possible TB, but AFB and culture negative

Abbreviation: CI=confidence interval

**Supplementary Table 1: Main reasons for death, as reported by a family member**

|  |  |
| --- | --- |
| Reason for death | Number (%)(n=101) |
| Diabetes complications, not specified | 69 (68.3) |
| Renal failure | 8 (7.9) |
| Diabetes complications + other | 7 (6.9) |
| Hypoglycaemia | 3 (3.0) |
| Heart attack / heart failure | 3 (3.0) |
| Accident / injury | 2 (2.0) |
| Cancer | 2 (2.0) |
| Liver cirrhosis | 1 (1.0) |
| Dyspnoea, bronchitis | 1 (1.0) |
| Malnutrition & respiratory failure | 1 (1.0) |
| Unknown | 4 (4.0) |