

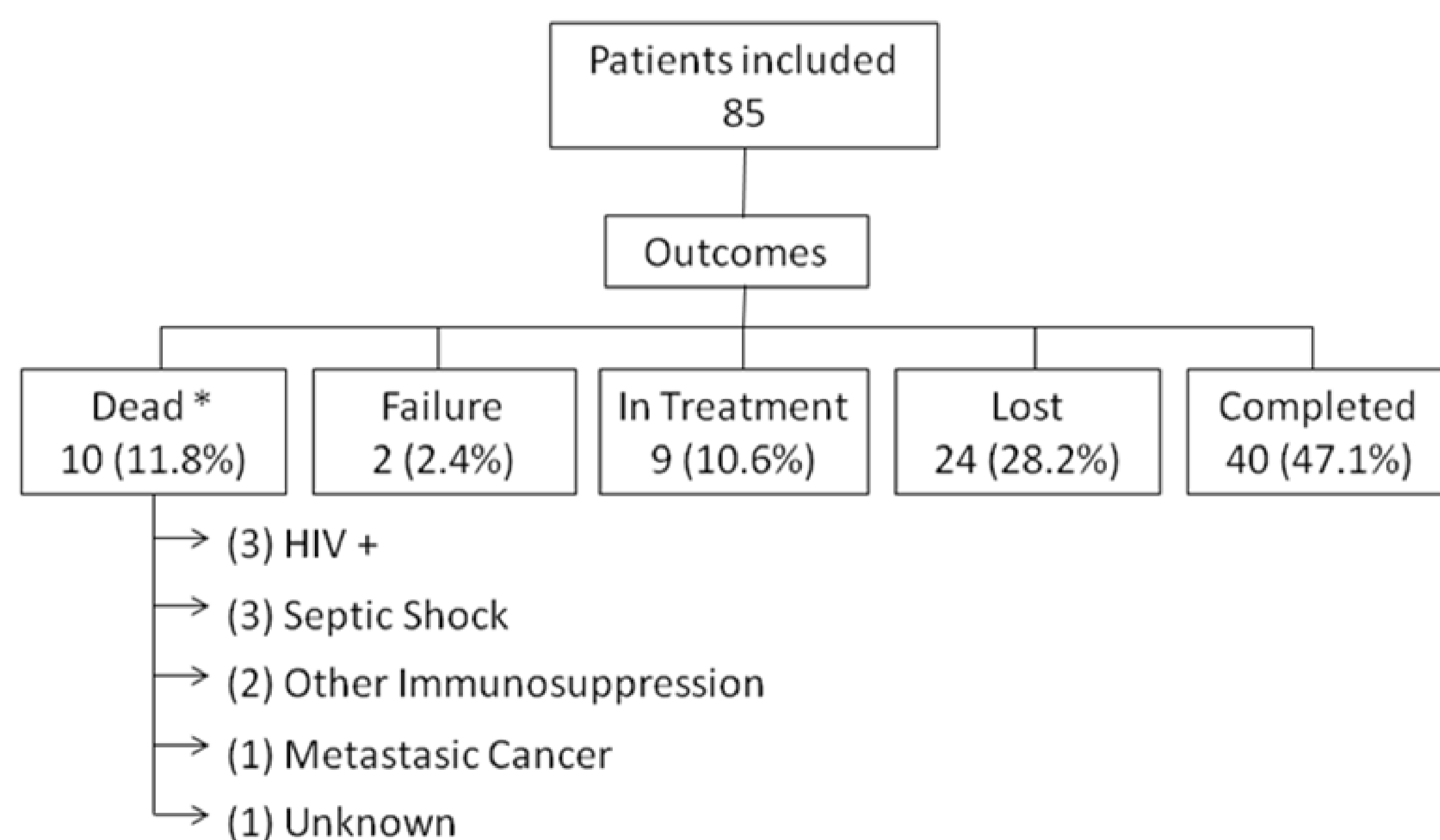
Introduction

Tuberculosis (TB) is considered an emergent disease; HIV co-infection, resistance and pharmacological interactions have changed what was previously known and its management. According to the WHO, in 2011 8.7 million people were infected and 13% were HIV positive (1). In the Americas 231,880 new cases were reported; 16,000 in Colombia, where 19.3% were HIV positive and 3.7% of all new TB infections were MDRTB (1). There were 1,039 new cases reported in Cali in 2011 with 142 deaths (2). Treatment outcomes in immunocompromised patients need to be studied.

Methods

The Tuberculosis Research Group in Fundación Valle del Lili was notified of every patient receiving a diagnosis of TB by smear, culture or PCR in 2011. Clinical, microbiological and epidemiological information was collected. Data was analyzed as part of a descriptive study.

Figure 1. Profile of the study cohort of 85 patients with tuberculosis in Cali, Colombia.



* Three patients (27.27%) were HIV positive. Other immunosuppression included X linked ID, in an infant patient, and Malnutrition. Two of the septic shock patients had vasculitis. 40% died at diagnostic time and another 40% were losses.

Results

In 2011, **85 patients** were diagnosed with TB, 51.8% were from Cali. Females represented 47.1% of the population, 10.0% were pregnant. The median for age was 40 years IQ [26.5-55.5]. Among the risk factors, 22.4% had a HIV co-infection, 17.7% a previous TB diagnosis, 14.1% had a TB contact, 14.1% were smokers and 7.1% were transplant recipients. The average time of symptoms before diagnosis was made exceeded 2 months. 45.8% of the cases were extrapulmonary, 30.8% involved the meninges. 67.3% of the cases that had pulmonary involvement were smear positive and 8.2% had a normal chest x-ray. Fever (54.1%), weight loss (52.9%) and non expectorant cough (27.1%) were the main symptoms. A drug susceptibility test was conducted in 34.1% of the patients.

Amongst new cases the resistance to isoniazid was of 31.0% and 10% were MDRTB. In relapses, a 44.4% of MDR was found. The 47.1% of the total population completed TB treatment, 28.2% were lost in follow-up, 11.8% died and 2.4% failed treatment. Of the deceased patients 27.0% were HIV positive.

Table 1. Sociodemographic and clinical characteristics of 85 patients with tuberculosis in Cali, Colombia.

	n (%)
No. of Patients	85 (100.00)
Age (Average) ± SD	40,69 ± 19.54
Men (%)	45(52.94)
City of Origin^a	
Cali	44 (51.76)
Tuluá	5 (5.88)
Palmira	4 (4.71)
Buenaventura	3 (3.53)
Risk Factors	
HIV infection	19 (22.35)
Previous TB infection	15 (17.65)
Recent contact with TB	12 (14.12)
Smoking	12 (14.12)
COPD	5 (5.88)
Pregnancy	4 (4.71)
Hepatitis C	1 (1.18)
Place at the time of diagnosis	
Inpatient treatment facility	48 (56.47)
Site of TB infection	
Pulmonary	49 (57.64)
Smear Positive	23 (46.93)
Extrapulmonary	39 (45.88)
Time of symptoms before diagnosis in months (Average) ± SD	2.21±1.17
Symptoms	
Fever	46 (54.11)
Weight loss	45 (52.94)
Dry Cough	23 (27.05)
Expectorant Cough	18 (21.17)
Adenopathy	16 (18.82)
Dyspnea	15 (17.64)
Night sweats	14 (16.47)
Diarrhea	4 (4.71)
Cavitated lesions on imaging	16 (18.82)
Drug susceptibility testing	29 (34.12)

a. 7 patients had unknown origin.

Table 2. Drug susceptibility tests and resistance profile in 29 patients with tuberculosis in Cali, Colombia.

	New Cases (%)	Relapses (%)
N	20	9
Sensitive	14 (70)	5 (56)
Resistant	6 (30)	4 (44)
Mono-resistant		
Isoniazid (H)	3 (15)	0
Poliresistant		
H+S	1 (5)	0
H+E	0	0
H+Z	0	0
H+Eth	0	0
S+E	0	0
Multidrug-Resistant (MDR)		
H + R	2 (10)	4 (44)
Total Drug Resistance		
H ^a	6 (30)	3 (33)
0,2 mg/L	6 (30)	3 (33)
1,0 mg/L	5 (25)	3 (33)
R	2 (10)	3 (33)
E	0	1 (11)
S	3 (15)^b	2 (22)^b
Z	0	0

a. Low-level (0,2 mg/L) and High-level (1,0mg/L) INH-resistance
b. Two of the MDR were also resistant to Streptomycin.

Conclusions

A high TB prevalence was found in HIV, transplant recipients and pregnant women in our cohort, this may be attributed to the fact that we are a reference center. A Delay in time diagnosis, high isoniazid resistant and lost in follow up can condition a high mortality, but further studies are required. The current model for Tuberculosis care in Cali does not make it possible to have a thorough follow-up of the patients diagnosed at a particular institution; changes in public health policies are needed, enabling care during TB treatment in specialized centers.

Bibliography

- World Health Organization: Global tuberculosis report 2012 (WHO/HTM/TB/2012.6). Geneva: World Health Organization; 2012. http://www.who.int/entity/tb/publications/global_report/gtbr12_main.pdf
- Mosquera Castillo, Solanyi; Cali le hace frente a la tuberculosis. 2012. Secretaría de Salud Pública Municipal de Cali. <http://www.cali.gov.co/publicaciones.php?id=44698>