

Extrapulmonary tuberculosis in Murcia, Spain, 1998-2012

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OBJECTIVES

To study the burden and trend of confirmed extrapulmonary tuberculosis (EPTB) diagnosed in our hospital over a 15-year period, analyzing the differences in HIV-coinfected and foreign-born population.

METHODS

We performed a retrospective descriptive analysis of the cases of EPTB microbiologically confirmed in our hospital between January 1998-December 2012. Patients were considered only once. The cases were grouped in 3 four-consecutive-year intervals (namely: Period1, Period2 and Period3). EPTB was defined as a case with any positive culture of *Mycobacterium tuberculosis* complex (MTBC) from extrapulmonary samples, or positive pleural effusion samples with negative or no respiratory samples. Unknown HIV infection was considered as negative. Cultures were performed in Lowenstein-Jensen(BD)®, and from 2006 also in Bactec MGIT 960(BD)®. Identification of the strains was performed by Accuprobe MTBC Kit®.

RESULTS

	TOTAL n (%)	HIV n (%)	Non-HIV n (%)	P	Immigrant n (%)	Native n (%)	P
Cases:	122	27 (22.1)	95 (77.9)		33 (27)	89 (73)	
Male	70 (57.4)	25 (35.7)	45 (64.3)	<0.001	18 (25.7)	52 (74.3)	0.427
Female	52 (42.6)	2 (3.8)	50 (96.2)		15 (28.8)	37 (71.2)	
Average age ± DS	45.64 ± 20.53	37.78 ± 11.74	47.87 ± 21.85		33.56 ± 7.59	50.30 ± 21.85	
<20	6	0	6 (100)		0	6 (100)	
21-35	48	15 (31.3)	33 (68.8)		24 (50)	24 (50)	
36-50	24	9 (37.5)	15 (62.5)	0.01	8 (33.3)	16 (66.7)	<0.001
51-65	13	1 (7.7)	12 (92.3)		1 (7.7)	12 (92.3)	
>65	31	2 (6.5)	29 (93.5)		0	31 (100)	
Total (15 years)	122	27 (22.1)	95 (77.9)		33 (27.04)	89 (72.95)	
Period 1 (99-03)	53 (43.4)	13 (24.5)	40 (75.5)	0.101	12 (22.6)	41 (77.4)	0.191
Period 2 (04-08)	42 (34.4)	12 (28.6)	30 (71.4)		10 (23.8)	32 (76.2)	
Period 3 (09-13)	27 (22.1)	2 (7.4)	25 (92.6)		11 (40.7)	16 (59.3)	
Location:							
Pulmonary	383	23	360		129	254	
Extrapulmonary	122	27 (22.1)	95 (77.9)		33 (27)	89 (73)	
Extrap. location:							
Pleural	32	1 (3.1)	31 (96.9)		10 (31.3)	22 (68.8)	
Lymphatic	30	10 (33.3)	20 (66.7)		11 (36.7)	19 (63.3)	
Osteoarticular	8	0	8 (100)	<0.001	2 (25)	6 (75)	0.57
Meningeal	3	1 (33.3)	2 (66.7)		0	3 (100)	
Genitourinary	19	0	19 (100)		4 (21.1)	15 (78.9)	
Peritoneal/Dig	2	2 (100)	0		1 (50)	1 (50)	
Disseminated	28	15 (53.6)	13 (46.4)		5 (17.9)	23 (82.1)	
Auramine smear:							
Positive	23 (18.9)	14 (60.9)	9 (39.1)	0.001	5 (21.7)	18 (78.3)	0.356
Negative	99 (81.1)	13 (13.1)	86 (86.9)		28 (28.3)	71 (71.7)	

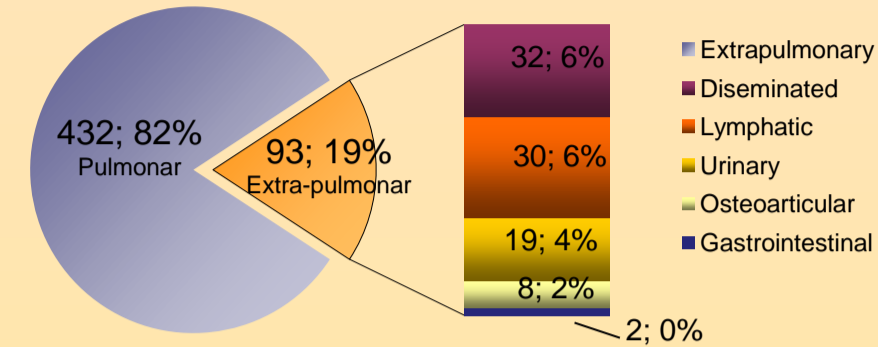


Fig1. Cases of TB according to the clinical presentation

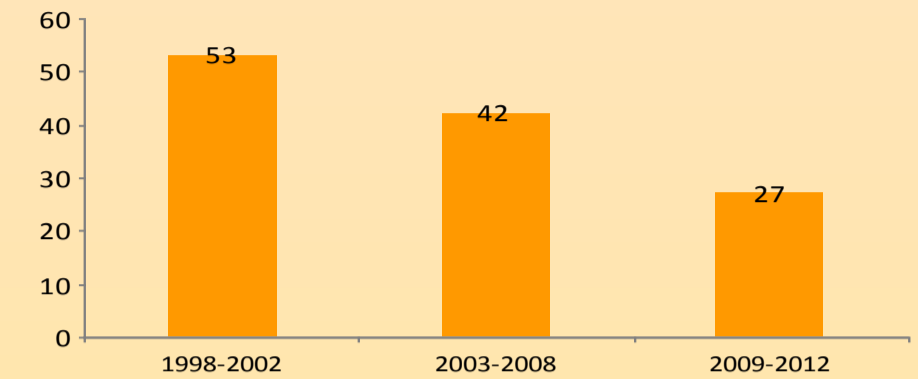


Fig.2: EPTB cases in 3 four-year-periods

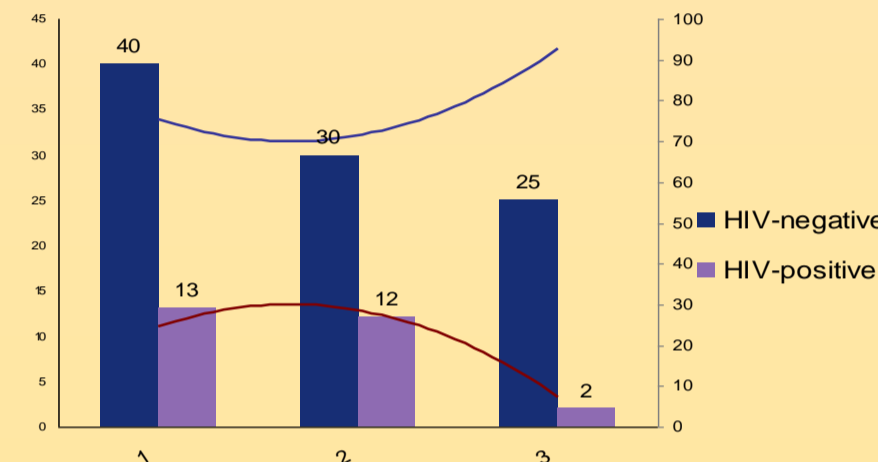


Fig. 3: EPTB in HIV positive and negative patients

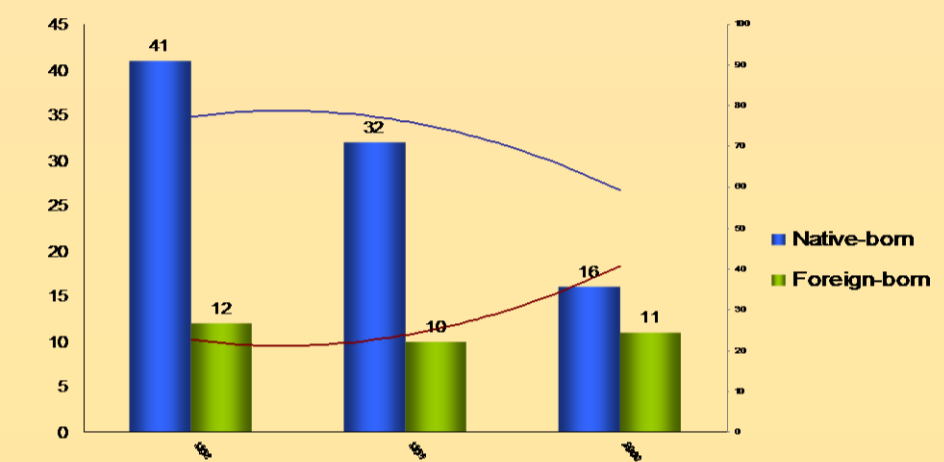


Fig.4: EPTB cases in native and foreign born population

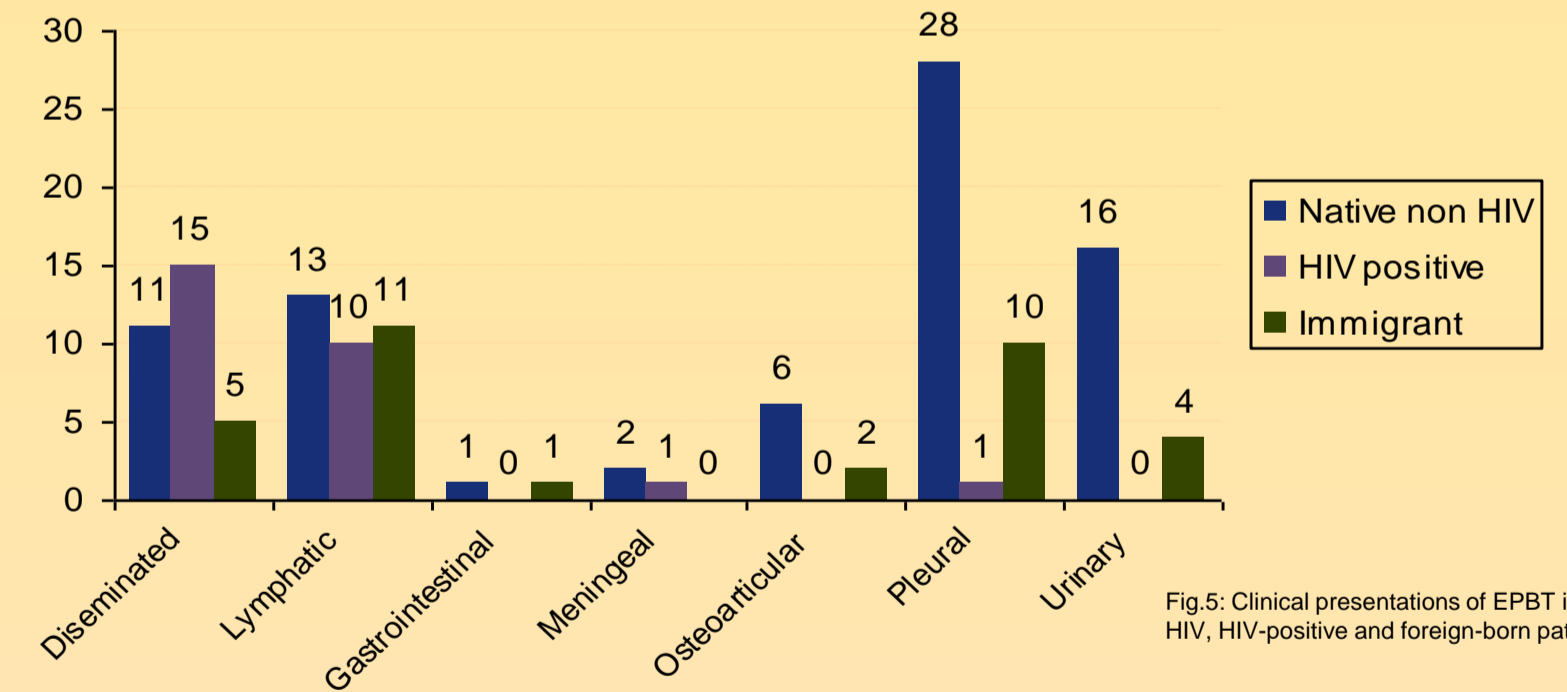


Fig.5: Clinical presentations of EPBT in native-non-HIV, HIV-positive and foreign-born patients

CONCLUSIONS

- *The absolute number of EPTB cases diminished from 1998 to 2012, but since the pulmonary tuberculosis cases have decreased, the proportion of EPTB among all tuberculosis has remained stable for the last decade.
- *The EPTB cases have decreased in the native population, especially in HIV patients, whereas the EPTB immigrant cases have remained stable.
- * Male gender, younger age and positive acid-fast-bacilli smears occurred at a significantly higher proportion in HIV co-infected patients compared to the HIV-negative patients.
- *EPTB occurs in immigrants at a younger age than it does in native-born patients.