

Management of lymph node tuberculosis: Tunisian multicenter study

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Introduction

- Lymph node tuberculosis (LNT)
 - First extra-pulmonary location
 - Increasing all over the world
- Prevalence in Tunisia:
 - TBC: 28/100.000 inhabitants
 - LNT: 5/100.000 inhabitants
 - Under estimated
- No consensus on management:
 - Medical +/- chirurgical treatment?
 - Last of treatment?

Aim of study

- Have a better vision on LNT on Tunisia
- Identify actual situation
 - Management
 - Lack of queries about cases

Methods

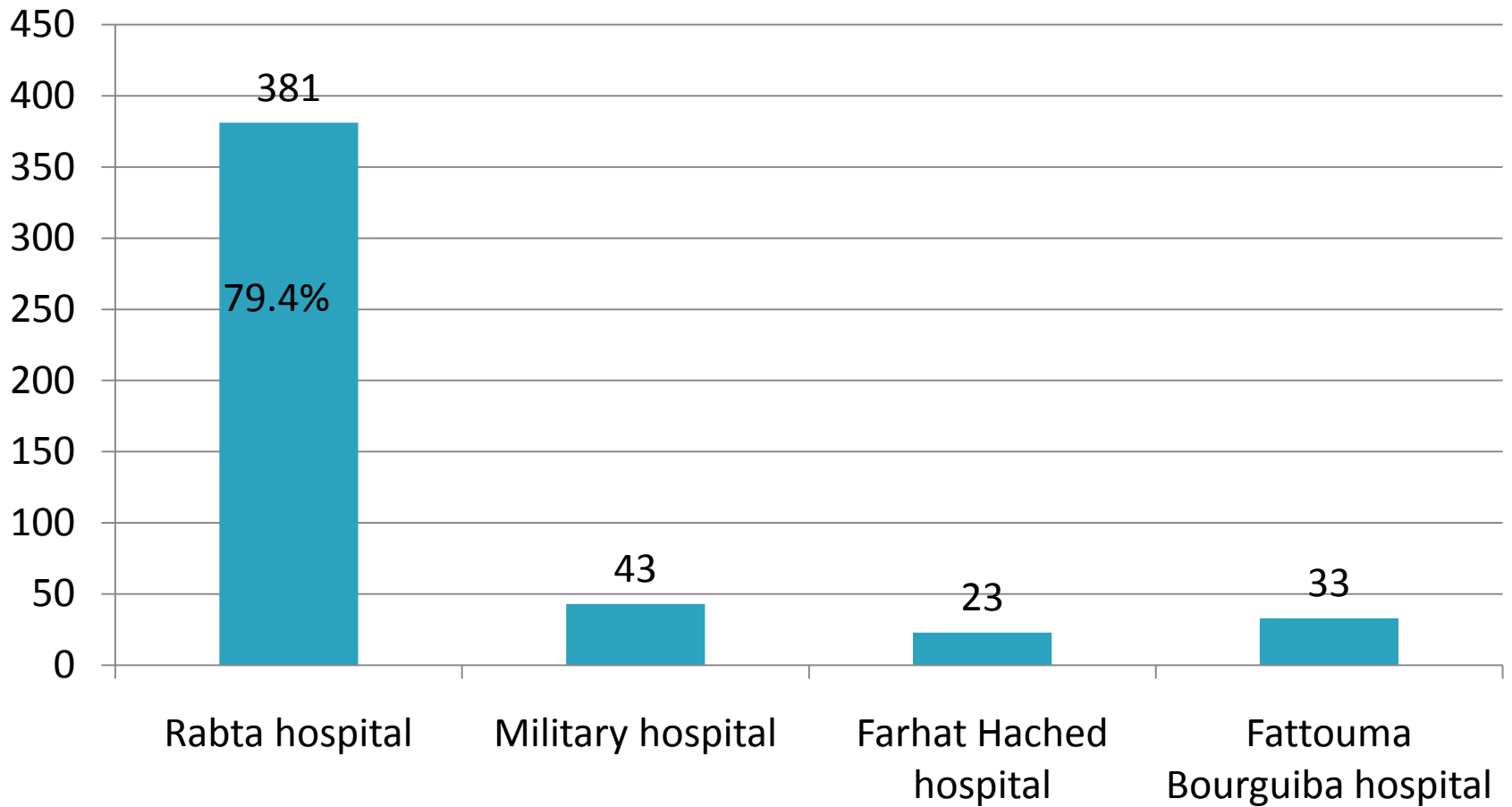
- Retrospective study
- January 2001 - December 2010
- Four infectious diseases departements:
 - La Rabta hospital, Tunis
 - Military hospital, Tunis
 - Fahat Hached hospital, Sousse
 - Fattouma Bourguiba hospital, Monastir
- Data: SPSS 13.0, statistics with X_2

EPIDEMIOLOGY

General findings

- 480 patients
- Age: 42.3 years (3 – 90), median: 41
- 134 men (27.9%)
- 346 women (72.1%)
- Tuberculosis antecedent:
 - 39 cases (8.1%)
 - Lymph node location: 27 cases (69.2%)

Center distribution



Geographic distribution

- North-West governorates
- Tunis because of
 - Migration
 - Human density



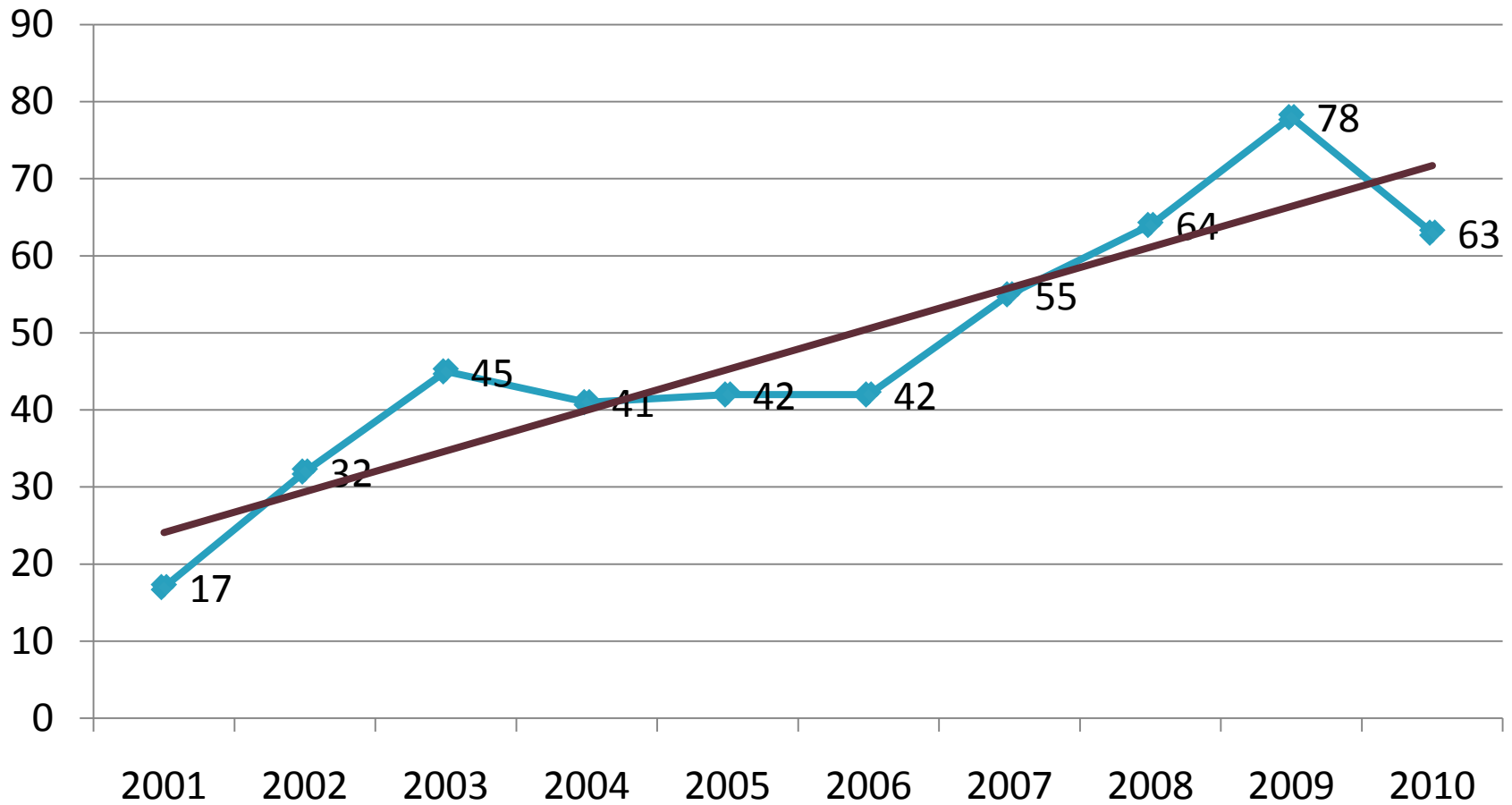
Epidemiology

- Contagion : 48 cases (10%)
- BCG researched : **54 cases only**
- Fresh milk consumption:
 - **Yes** : **102 cases (21.2%)**
 - No : 16 cases
 - **Not searched** : **410 cases**

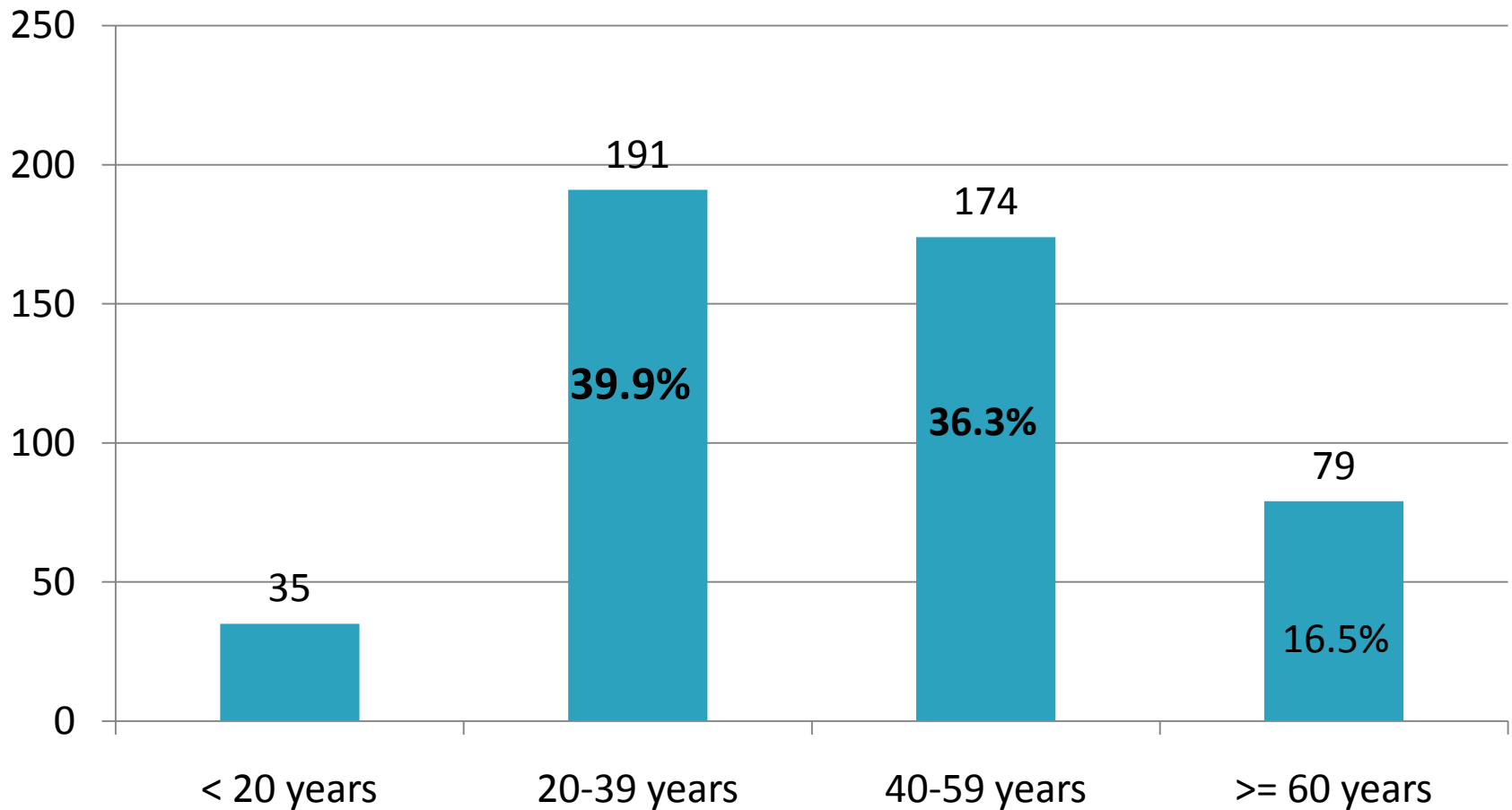
Associated diseases

- HIV infection : 27 cases (5.6%)
- Diabetes : 16 cases
- Tumoral disease : 14 cases
- Immunity disease : 13 cases

Cases/year

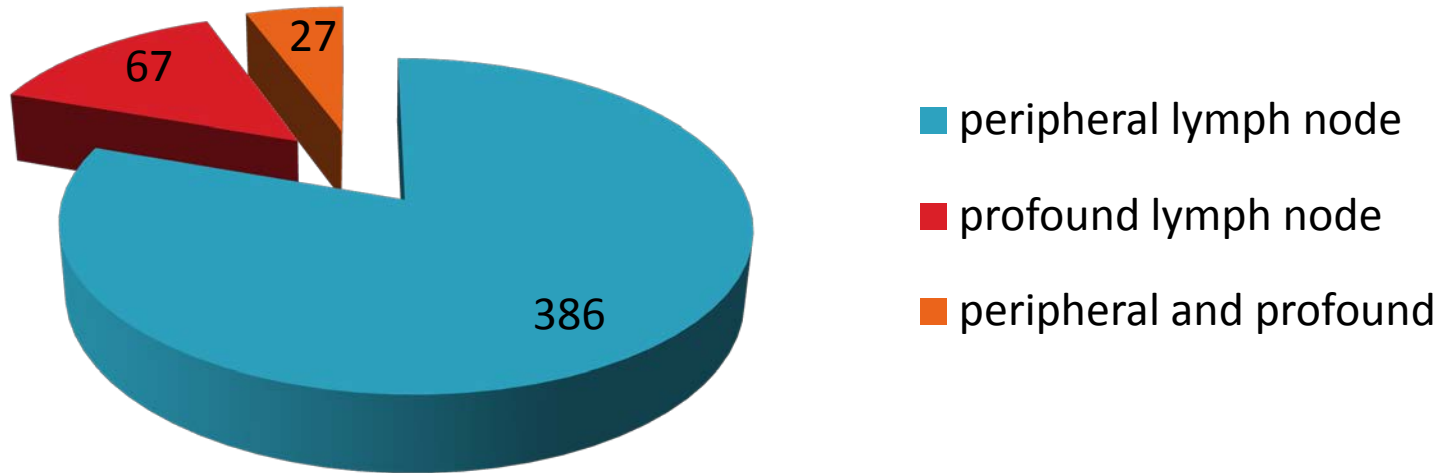


Patients' age distribution

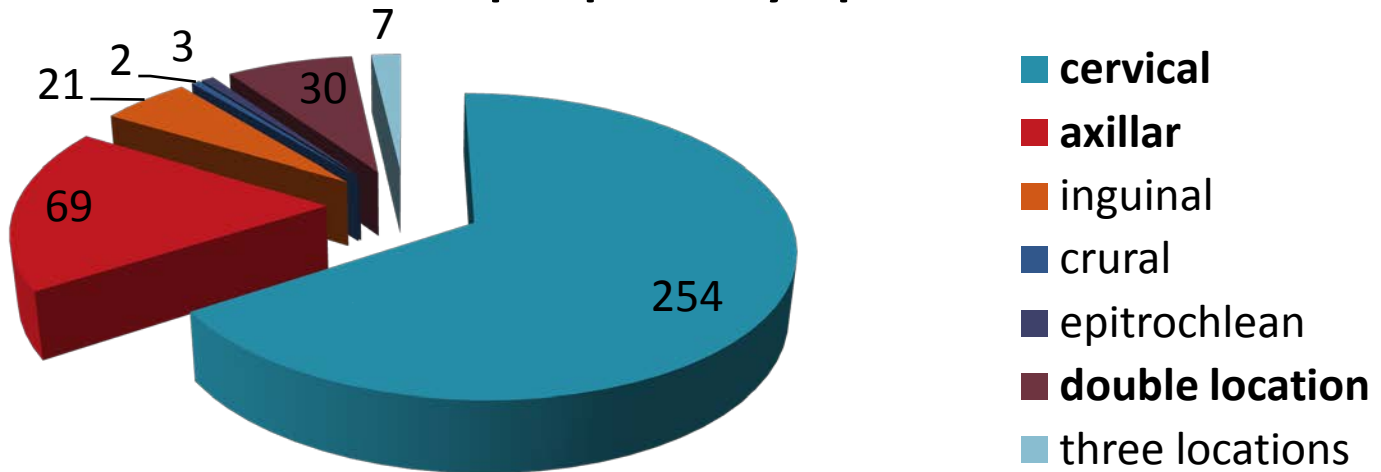


CLINICAL FINDINGS

Lymph node locations

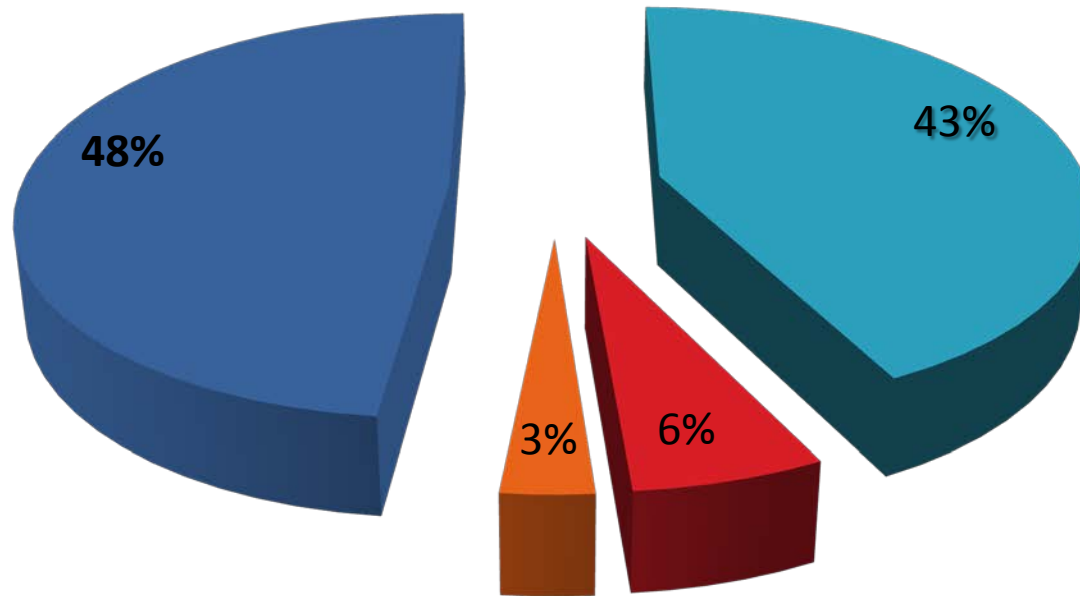


Distribution of peripheral lymph nodes

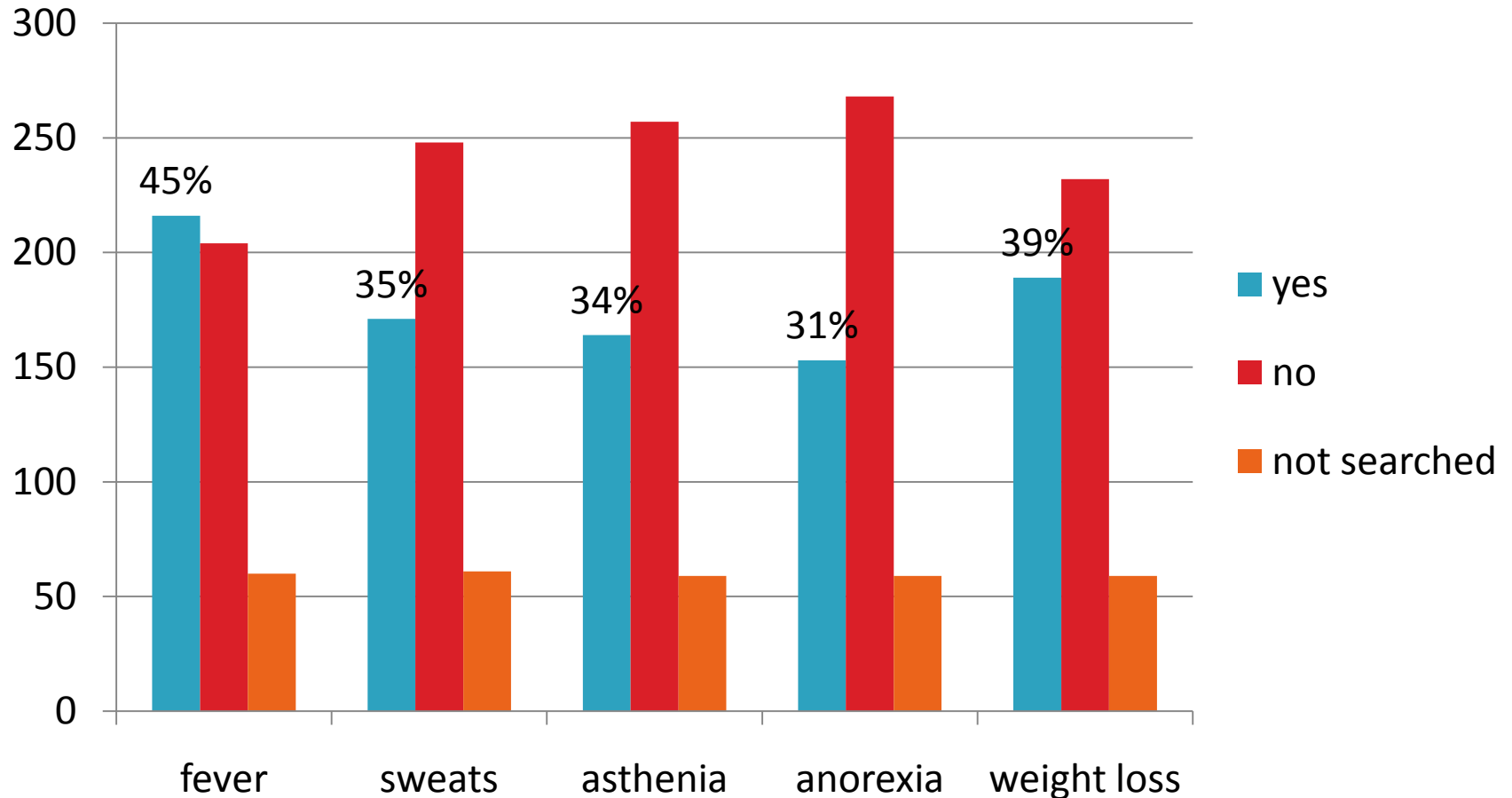


Lymph node number

■ one ■ two ■ three ■ many

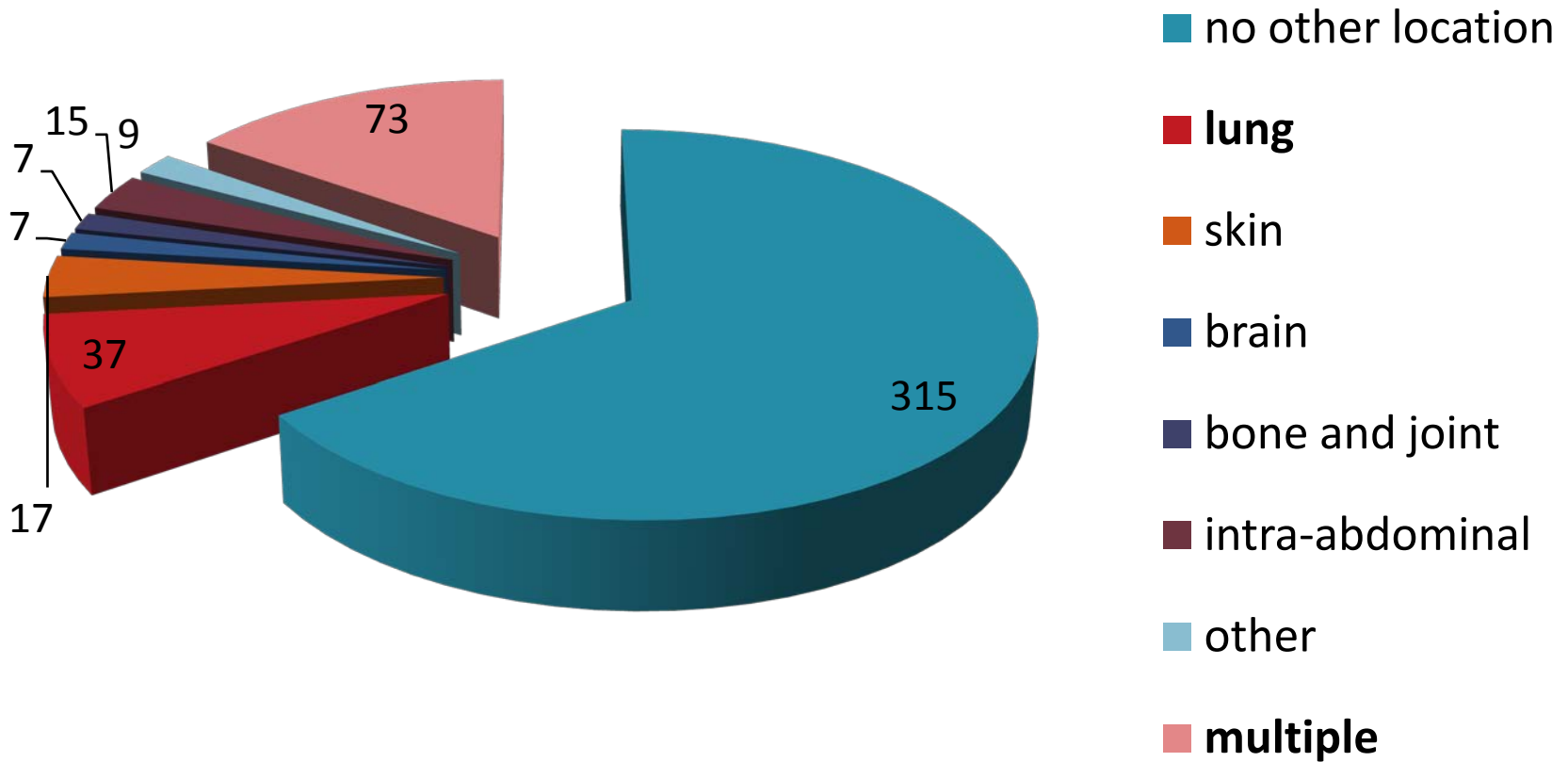


Symptoms



One symptom at least: 295 cases (61.5%)

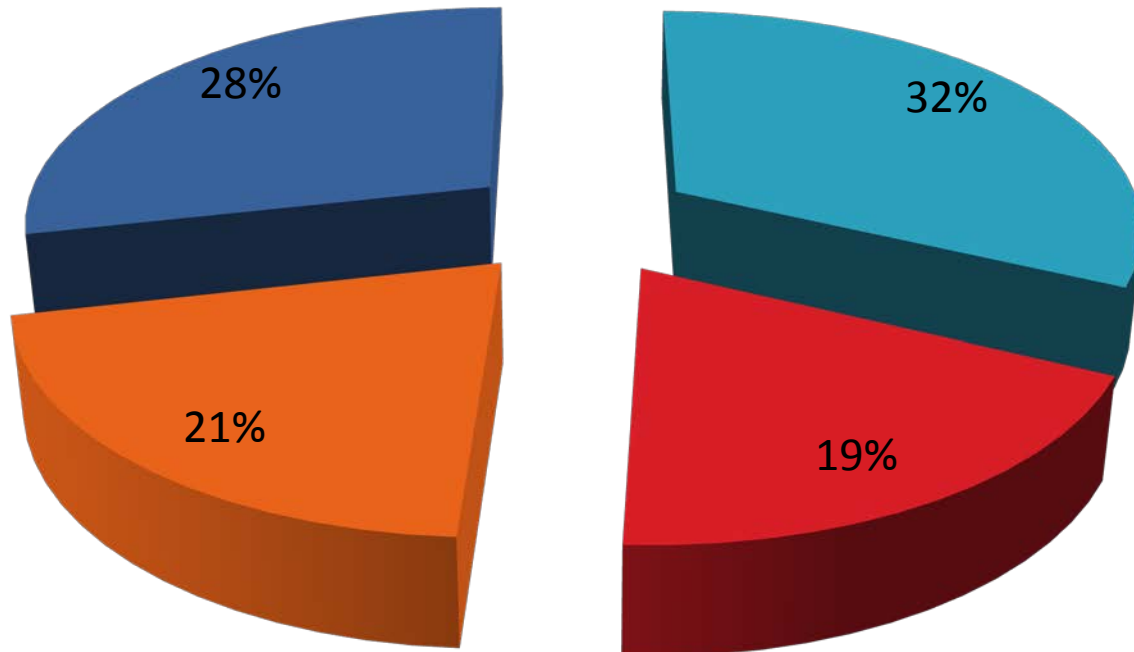
Associated locations



DIAGNOSTIC TOOLS AND RESULTS

Mantoux test

■ positive ■ phlyctenular ■ negative ■ not precised



Radiology

Cervical ultrasonography

	Number	Percentage
Non done	345	71.9
Necrosed LN	129	26.9
Non necrosed LN	3	0.6
Normal	3	0.6

Abdominal ultrasonography

	Number	Percentage
Non done	220	45.8
Normal	177	38.5
Lymph node	48	10
Ascitis	5	1
Liver lesion	3	0.6
Psoas abcess	4	0.8
Mass	4	0.8
Multiple findings	19	2.9

Computed tomography

	number	percentage
Non done	360	75%
Done	120	25%
Profound lymph node only	64	53%
PLN and other location	33	
Other location	23	

Fine needle aspiration

- 133 cases (27.7%)
- Features:
 - Necrosis : 83 cases
 - FAB : 21 cases
 - Culture : 10 cases
 - *M. tuberculosis* : 7 cases
 - Sensitive : 3 cases
 - Resistance to ETB or PZD or STR or ETHION: 4 cases

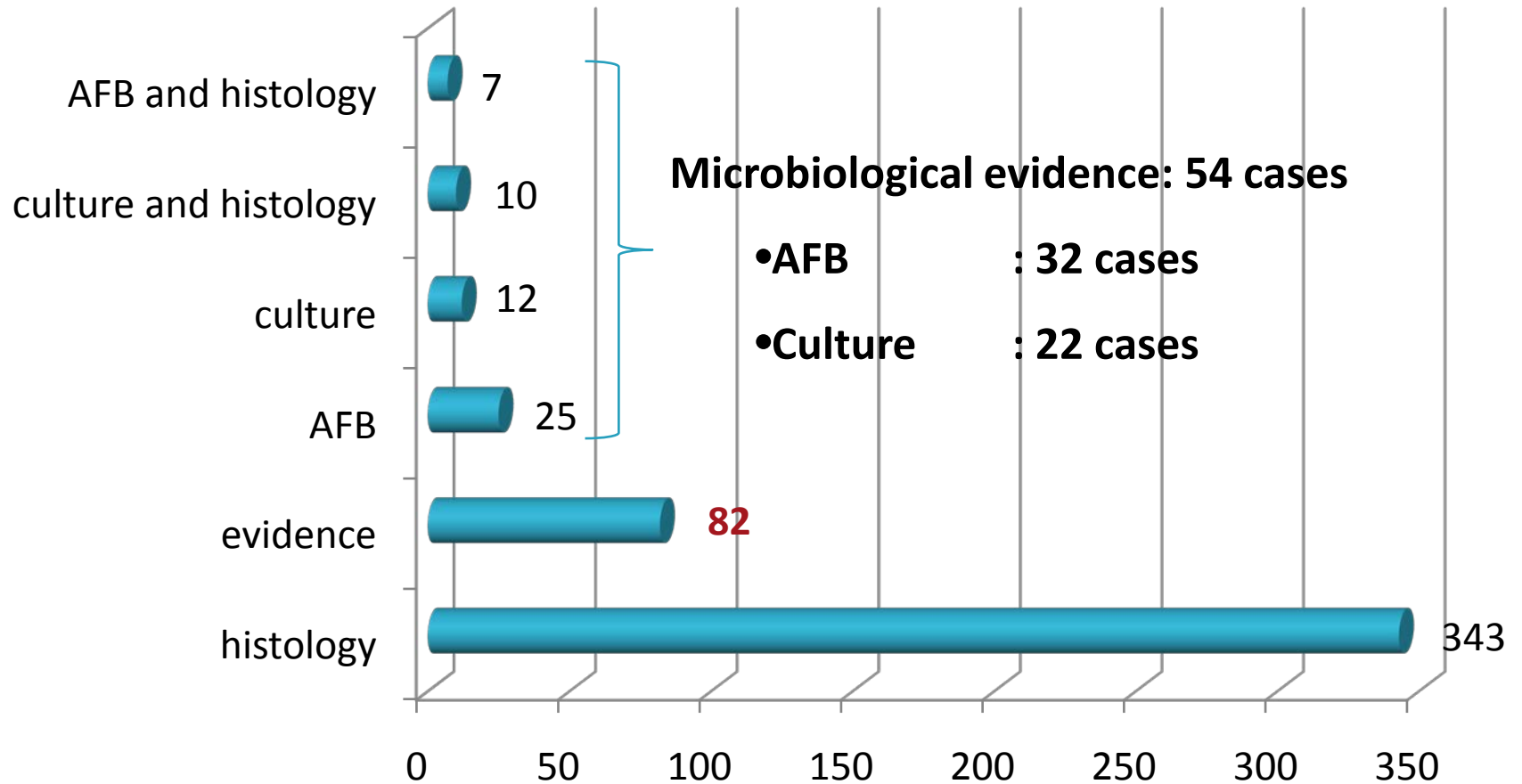
Biopsy

- 371 cases (77.3%)
- Location
 - **Lymph node** : **334**
 - **Skin** : **16**
 - ORL : 6
 - Peritoneum : 6
 - Lymph node and other : 5
 - Liver : 2
 - bronchi : 1

Biopsy

- Necrosis : 344 (71.7%)
- Granuloma : 360 (75%)
- Direct exam : 4/30
- Culture : 4/24
 - *M. tuberculosis* 4/4
 - Resistant to ETB in one case, to strepto in one

Diagnosis



Treatment

Treatment

- All patients were treated
- Observance noted : 450 (93.8%)
- Molecules used:

Molecules	Number of patients	Percentage
HRZE	430	89.6
HRZS	35	7.3
HRZC	14	2.9
HRZ	1	0.2

Observance

	Male	Female	Total
Yes	116 (86.5%)	334 (96.5%)	450
No	18 (13.4%)	12 (3.6%)	30
Total	134	346	480

Female were more observant. $p = 0.000$

Treatment change

- Treatment change: 96 cases (20%)
- Change reason:

Reason	Patients number	Percentage
Side effects	77	80.2%
Aggravation	7	7.2%
No response	7	7.2%
Treatment adaptation	5	5.2%

Treatment change

Change	Male	Female	Total
Yes	18	73	91
No	116	273	388
	134	346	480

Female changed their treatment more frequently than male.

$p = 0.042$

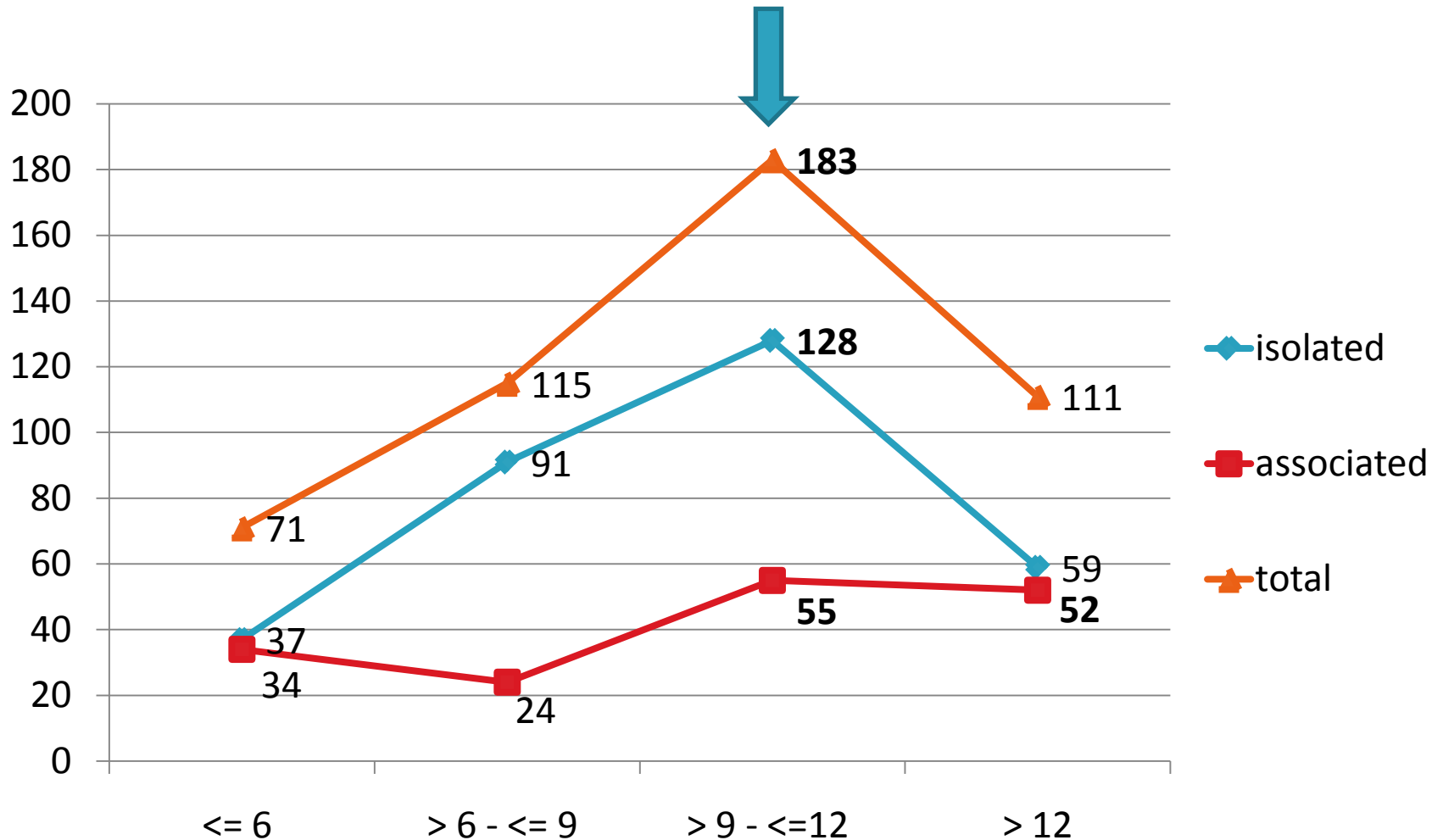
Treatment duration

	Mean (months)	Minimum	Maximum	Patients age
Isolated	10.9	0.1	37	42.5
Associated	12.7	0.1	74	41.9
Men	38.3			
Women	43.8			

	≤ 12 months	> 12 months	Total
Isolated	256	59	315
Associated	113	52	165
Total	369	111	480

$p = 0.002$

Treatment duration intervals (months)



Curative surgical treatment

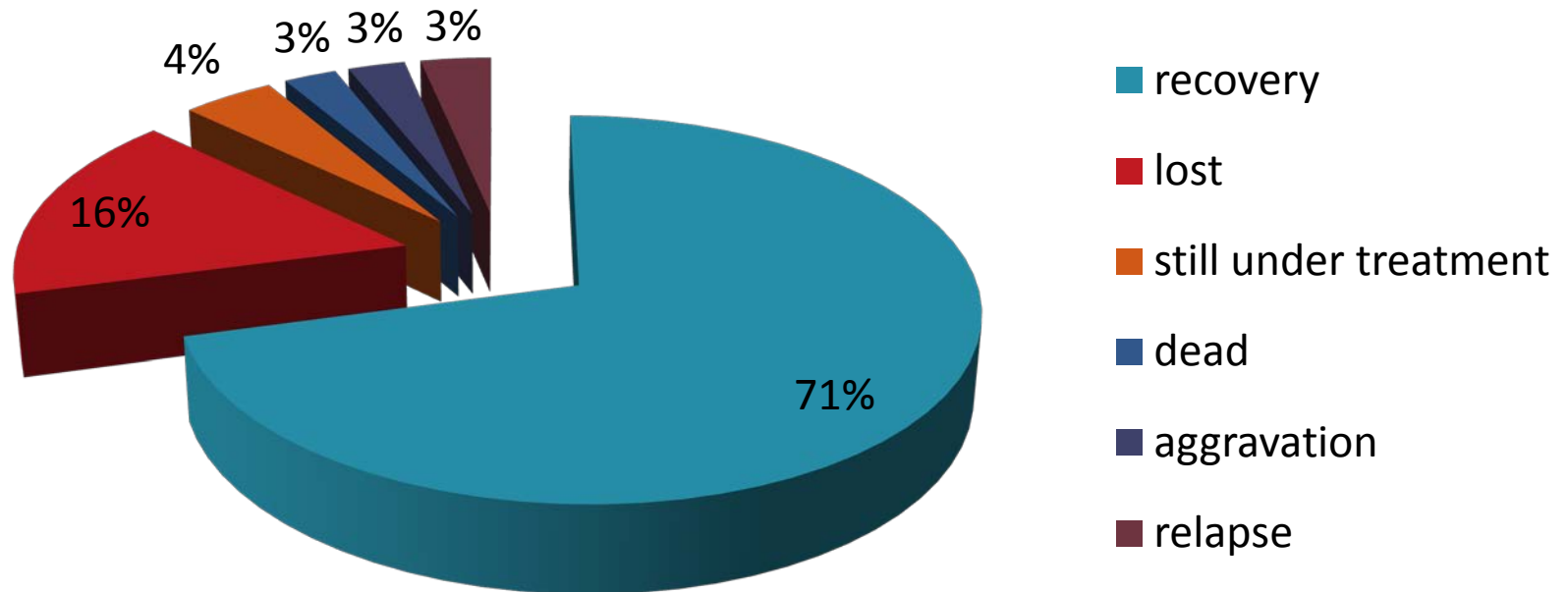
- 38 cases: 7.9%

	Fistula	No fistula	Total
Curative excision	13 (15.2%)	25 (6.3%)	38
No	72	370	442
	85	395	480

Curative excision was more frequent with fistula. $p = 0.013$

Evolution

Evolution



Fistulization : 85 cases (17.7%)

Evolution

Fistulisation	Male	Female
Yes	15	70
No	119	276
Total	134	346

$p = 0.012$

Evolution	male	female
recovery	79 (59%)	259 (74%)
lost	37 (27%)	41 (12%)
total	134	346

$p = 0.008$

CONCLUSION

- LNT : difficult management
- Bacteriologic diagnosis must be improved
 - Fine needle aspiration
 - Use of new diagnosis tools
 - Bacteriologic study on biopsy pieces
- Treatment duration is long
 - Must we discuss curative chirurgical treatment in case of fistulization or aggravation?