

Fatma Hammami^{1,2}, Makram Koubaa^{1,2}, Amal Chakroun^{1,2}, Khaoula Rekiq^{1,2}, Fatma Smaoui^{1,2}, Emna Elleuch^{1,2},
Chakib Marrakchi^{1,2}, Mounir Ben Jemaa^{1,2}

1. Infectious Diseases Department, Hedi Chaker University Hospital, University of Sfax, Tunisia
2. Extra-pulmonary Research Unity, Hedi Chaker University Hospital, Sfax, Tunisia

koubaa_makram@
medecinesfax.org

Background

Lymph node tuberculosis (LNTB) represents the most common site of extrapulmonary tuberculosis. Among children, due to non-specific clinical features, the diagnosis is often delayed. We aimed to compare the clinical, therapeutic and evolutionary features of LNTB between adults and children.

Methods

We conducted a retrospective study including patients hospitalized for LNTB in the infectious diseases and pediatric departments between 1993 and 2018. Children aged ≤ 18 years were included.

Results

► **Total:** 231 cases

► **Distribution of cases:**

- Children: 40 cases: 17.3%
- Adults: 191 cases: 82.7%

► **Demographic characteristics:** Family history of tuberculosis was significantly more frequent among children ($p=0.01$) (Table 1).

Table 1: Comparison of demographic characteristics between adults and children with lymph node tuberculosis

	Adults	Children	p-value
Females gender, n (%)	128 (67)	28 (70)	0.7
Mean age \pm SD, years	42 \pm 16	11 \pm 4	-
Family history of TB, n (%)	12 (6.3)	8 (20)	0.01
Raw milk consumption, n (%)	73 (38.2)	12 (30)	0.3
Contact with animals, n (%)	57 (29.8)	14 (35)	0.52

n: number, %: percentage, SD: standard deviation, TB: tuberculosis

► **Clinical features:** Multifocal tuberculosis was significantly more frequent among adults ($p=0.01$). (Table 2)

Table 2: Comparison of clinical features between adults and children with lymph node tuberculosis

	Adults	Children	p-value
Fever, n (%)	102 (53.4)	13 (32.5)	0.01
Night sweats, n (%)	68 (35.8)	4 (10)	0.001
Loss of appetite, n (%)	73 (38.2)	7 (17.5)	0.01
Weight loss, n (%)	67 (35.1)	6 (15)	0.01
Multifocal tuberculosis, n (%)	41 (21.5)	2 (5)	0.015

n: number, %: percentage

► **Tuberculin skin test:** positive in 75.8% of the cases among adults and in 86.2% of the cases among children ($p=0.2$).

► **Therapeutic and evolutionary features:**

Side effects of antitubercular therapy were significantly more frequent among adults ($p=0.004$) (Table 3).

Table 3: Comparison of therapeutic and evolutionary features between adults and children with lymph node tuberculosis

	Adults	Children	p-value
Mean duration of treatment \pm SD, months	10 \pm 4	9 \pm 3	0.14
Side effects of antitubercular therapy, n (%)	62 (33)	4 (10)	0.004
Recovery, n (%)	181 (94.8)	36 (90)	0.2
Relapse, n (%)	10 (5.2)	2 (5)	0.9
Death, n (%)	1 (0.5)	1 (2.5)	0.3

n: number, %: percentage, SD: standard deviation

Conclusion

The clinical presentation of LNTB among children was less common and misleading. A family history of tuberculosis and a high index of suspicion might shorten the diagnostic delay.

Background
Lymph node tuberculosis (LNTB) represents the most common site of extrapulmonary tuberculosis. Among children, due to non-specific clinical features, the diagnosis is often delayed. We aimed to compare the clinical, therapeutic and evolutionary features of LNTB between adults and children.

Methods
We conducted a retrospective study including patients hospitalized for LNTB in the infectious diseases and pediatric departments between 1993 and 2018. Children aged ≤ 18 years were included.

Results
Overall, we encountered 231 cases of LNTB. There were 40 children (17.3%) with a mean age of 11.4 years and 191 adults (82.7%) with a mean age of 42.16 years. As to gender, females were more affected (60.6% in children, 70% in adults, with no significant difference ($p > 0.05$)). Family history of tuberculosis was significantly more frequent among children (20% vs 6.3%, $p < 0.01$). Raw milk consumption (38.2% vs 33% ($p > 0.05$)) and contact with animals (29.8% vs 35%, $p > 0.05$) were more frequent among adults and children. Fever (53.4% vs 32.5%, $p < 0.01$), night sweats (35.8% vs 10%, $p < 0.001$), loss of appetite (38.2% vs 17.5%, $p < 0.01$) and weight loss (35.1% vs 15%, $p < 0.01$) were significantly more frequent among adults. Tuberculin skin test was positive in 75.8% of the cases among adults and in 86.2% of the cases among children ($p > 0.05$). Multifocal tuberculosis was significantly more frequent among adults (21.5% vs 5%, $p < 0.01$). Antitubercular therapy was prescribed for a mean duration of 10.4 months among adults and for 9.3 months among children, with no significant difference ($p > 0.05$). Side effects of antitubercular drugs were more frequent among adults (33% vs 10.3%), with a significant difference ($p < 0.004$). Comparison of the disease evolution showed no significant difference between adults and children, regarding recovery (94.8% vs 90%), relapse (5.2% vs 5%) and death (0.5% vs 2.5%).

Conclusion
The clinical presentation of LNTB among children was less common and misleading. A family history of tuberculosis and a high index of suspicion might shorten the diagnostic delay.