In conclusion, urinary f-Dpd assessment seems to be a practical, sensitive, and a non-invasive method in the diagnosis of rickets.

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Re-emergence of Visceral Leischmaniasis: Important Diagnostic Features

Visceral leishmaniasis (VL) is a generalized infection of the reticuloendothelial system. It results in a chronic progressive disease that is often fatal if not properly treated. Mediterranean VL is caused by the protozoon *Leishmania donovani* infantum and is transmitted by the *Phlebotomus* species. VL is endemic in many parts of the world. An increased incidence of the disease has been reported during the past decade in several Mediterranean countries.[1] An outbreak of VL occurred in our region, Bursa, between 1976 and 1984.[2] In the last 14 years, no new cases were observed. However, in August 1998, a 3-year-old girl was referred with a diagnosis of acute non-lymphoblastic leukaemia due to pancytopenia, diffuse hepatosplenomegaly and fever. Her bone marrow aspirate revealed myeloid hyperplasia containing atypical blastoid cells. A careful reinvestigation of bone marrow smears showed increased macrophages and *Leishmania donovani* bodies within them.

Mediterranean VL has often been confused with other diseases with more or less similar clinical presentations. In the last few years, it has been reported that both cutaneous and VL have re-emerged in different parts of Turkey, possibly due to the end of vector control programmes, and the increase in the agricultural and irrigation areas.[3–5] Therefore, we re-evaluated the most striking features of the previously diagnosed children, paying particular attention to the symptoms of VL.

There were 22 cases (11 males; mean age: 2.2 ± 0.3 years; range : 0.9–6.5 years) diagnosed between 1976 and 1998. The peak age was between 2 and 5 years (n = 13/22, 59 per cent). There was only one child younger than 1 year. The duration of the symptoms before diagnosis varied from 7 days to 8 months (mean: 2.12 ± 2.22 months) indicating that the infection occurred at an early period and the disease was unrecognized, leading to various unnecessary investigations being performed. Of the clinical signs on admission the intermittent fever, hepatosplenomegaly and anaemia were observed in all patients. Weight loss occurred in 32 per cent of them. Another important feature was reversed albumin-globulin ratio. Four cases (18 per cent) at the onset of symptoms presented with signs of bacterial infections (one with meningitis, the other with acute hepatitis and two with bronchopneu-monia). These bacterial infections could have led to misdiagnosis. Thrombocytopenia (73 per cent), leucopenia (63 per cent) and pancytopenia (50 per cent) were prominent haematologic findings. All symptoms subsided in 5–30 days after the commencement of glucantime.

In conclusion, VL can mimic various diseases and diagnosis may be delayed. It is necessary for the physicians, especially working in non-endemic regions, to bear in mind the symptoms of VL. The disease should be suspected in children who visited endemic places and present with one or more of the complaints and clinical symptoms previously mentioned, especially persistent fever, hepatosplenomegaly, isolated cytopenia and pancytopenia.

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Prevalence of Epilepsy in 3637 Children of Primary School Age in the Province of Malatya, Turkey

Although epilepsy prevalence is well-known in developed and some developing countries, this is not the case in Turkey.[1] Hence, an epidemiological study was performed to find out the prevalence of epilepsy in primary school children in Malatya, a city in the eastern region of Turkey.

A randomized study was carried out in the province of Malatya, covering a population of 3637 schoolchildren (1842 boys, 1795 girls) aged 7–12 years. The study was carried out in two phases. The first was a cross-sectional phase; parents of all children in five randomly selected primary schools belonging to different socioeconomic levels, were given a screening questionnaire (SQ). The SQ included questions about history of epilepsy; age at the time of the first seizure; the presence of the symptoms that might be associated with seizure, such as syncope, jerking, tremor, loss of consciousness, deviation of the eyes, cyanosis of the lips, spasm of the neck, trunk, legs or arms, twitching of one side of the face; illusions or hallucinations. In the second phase, according to the results of the SQ, there were 118 children with suspected epilepsy events. These children were invited to our pediatric outpatient clinic with their parents for re-evaluation. Detailed descriptions of the suspected epileptic events were recorded and physical and neurological examinations were done in all of the 118 children by a pediatrician experienced in neurology. The EEGs were recorded using the 10–20 international system with bipolar and referential montages in all of the children with a diagnosis of epilepsy on clinical history.

All of the children with two or more unprovoked seizures, with a minimum interval of 24 h, were chosen for analysis. Active epilepsy was defined as two or more unprovoked epileptic seizures with at least one seizure occurring within the previous 5 years, regardless of any anti-epileptic drug (AED) treatment. International League Against Epilepsy (ILEA) guidelines for epidemiological studies were used for classification of epilepsy.[2] Children with a single seizure, neonatal seizures, reflex anoxic seizures, and acute symptomatic seizures were excluded from the study.

TABLE 1
Distribution of type of epilepsy in this study

	n	%	Female	Male
Generalized epilepsy	24	82.7	14	10
Generalized tonic-clonic	17		11	6
Atonic	2		1	1
Tonic	3		0	3
Absence	1		1	0
Myoclonic	1		1	0
Partial epilepsy	3	10.4	1	2
Simple partial epilepsy	1		0	1
Complex partial epilepsy	2		1	1
Unclassified group	2	6.9	2	0
Reflex epilepsy	2		2	0
Total	29	100	17	12

As a result of re-evaluation, 29 (17 males and 12 females, M/F: 1.42) of the 118 children, who fulfilled the criteria of the Commission of Epidemiology and Prognosis of the ILEA guidelines for epidemiological studies were accepted as true epileptics.[2] The epilepsy prevalence rate was therefore found to be 0.797 per cent in the city centre of Malatya (Table 1).

Of the total epileptic group, 41.4 per cent had their first seizure between the ages of 1 month and 1 year, 37.9 per cent between 2 and 5 years of age, and 20.7 per cent between 6 and 12 years of age. The epileptic history of family members was 17.24 per cent. Active epilepsy was found in 14 children (48.27 per cent). Four of them were in the low IQ group. Eleven children had a diagnosis of epilepsy prior to the study (38 per cent). The probable causes of epilepsy were identified as perinatal injury in seven cases, meningitis in two, and head trauma in one child.

In conclusion, the cumulative incidence of epilepsy

TABLE 2
Prevalence of epilepsy in the world

Reference	Rate (%)	Country	Age of subjects (years)
Kurtz, *et al*. 1986[3]	0.84	UK	0–23
Eriksson, *et al*. 1992[4]	0.394	Finland	0–15
Singh, *et al*. 1994[5]	0.42	India	6–15
Endziniene, *et al*. 1994[6]	0.425	Lithuania	0–15
Sidenvall, *et al*. 1993[7]	0.42	Sweden	0–15
Murphy, *et al*. 1995[8]	0.6	USA	10
Durkin, *et al*. 1992[9]	0.58–1.55	Bangladesh, Jamaica, Pakistan	2–9
Okan, *et al*. 1995[10]	0.9	Turkey (Gemlik)	0–5
Karabiber, *et al*. (this study)	0.797	Turkey (Malatya)	7–12