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INTRODUCTION

➤ Measles virus infections generally occur in childhood, but infections in adolescence and adulthood can lead to complications. Here we present an adult patient with positive measles serology who was diagnosed with new onset type 1 diabetes and bilateral facial paralysis.

CASE

➤ A previously well 28-year-old woman had suffered from fever, nausea, vomiting and generalized fatigue for one day before being transferred to our emergency department in a confused state.

➤ Physical findings on admission were height 150 cm and body weight 88 kg, with a body mass index of 39 kg/m². She had a fever of 38 Celsius degrees. Laboratory data on admission are demonstrated in Table 1.

➤ She was treated by intravenous infusion of saline and insulin and eventually switched to intensive insulin therapy four times a day. On the second day of hospitalisation she developed weakness on both sides of her face. On physical examination, there was bilateral facial nerve paralysis.

➤ An electroneuromyography demonstrated bilateral axonal neuropathy of the facial nerve and confirmed the diagnosis. We performed serological testing for several viral antibodies.

➤ The results revealed significant elevation of the measles IgM and IgG titers but no abnormal results were shown in any of the other serological tests (Table 2).

➤ One week later, the patient's facial weakness had improved spontaneously with no residual weakness.

Table 1. Laboratory data on admission.

Complete Blood Count	
WBC	11200/µl
Hb	13 g/dl
Plt	23.4 x 10 ⁹ /µl
Blood Chemistry	
BUN	23 mg/dl
Cre	1.2 mg/dl
Alb	4.7 g/dl
Na	122 mEq/l
K	3.8 mEq/l
SGPT	17 IU/l
SGOT	15 IU/l
T-Chol	135 mg/dl
TG	324 mg/dl
Amylase	92 IU/l
Glu	421 mg/dl
HbA _{1c}	9.2 %
Urinalysis	
Glucose	3+
Protein	1+
Ketone	4+
Arterial Blood Gas Analysis on 2 L/min oxygen by mask	
pH	7.143
pO ₂	98.0 mmHg
pCO ₂	23.7 mmHg
HCO ₃ ⁻	8.4 mmol/L

Table 2. The results of serological testing for viral antibodies (IU/ml)

Measles virus*	IgM	1.44 (0-1.2)
	IgG	1.86 (0-1.1)
Mumps virus	IgM	0.48
	IgG	0.09
Rubella virus	IgM	0.16
	IgG	>400
Varicella zoster virus	IgM	0.67
	IgG	2.23
Cytomegalovirus	IgM	negative
	IgG	420
EBV-anti VCA	IgM	0.93
	IgG	303
Herpes Simplex virus	IgM	negative
	IgG	52.662
Borrelia Burgdorferi	IgM	0.42
	IgG	0.43
Treponema Pallidum	Hemagg.	(-)

DISCUSSION

➤ Data on T1DM comes from the Swedish Childhood Diabetes Study which showed a significantly higher rate of children who developed diabetes and were not vaccinated against measles.

➤ The authors hypothesized that measles vaccine could have a protective effect or that measles infection could be a diabetogenic agent.

➤ The differential diagnosis of the causes for bilateral facial paralysis covers a wide field, including genetic, infectious, traumatic, neoplastic, metabolic, neurological, vascular, iatrogenic and idiopathic etiologies. Measles is not among the well documented infectious etiologies but three adult patients with acute renal failure and bilateral facial paralysis have been reported.

➤ Our patient had an atypical presentation of measles, as expected in adults, because of fever and positive measles IgG and IgM antibodies.

➤ Our case is interesting due to coexistence of bilateral facial paralysis, new onset T1DM and positive measles serology. And there is not a similar case in the literature. Although there are limitations with respect to the true relation between measles and these two manifestations, this clinical picture should be kept in mind as a possible atypical presentation of measles infection in adults.