

Differential Diagnosis of Dengue with Rash

Illness	History	Exam	Test
Erythema Infectiosum (Fifth disease)	Occurs most commonly in children, 5 to 15 years, during winter and spring. If history of exposure to person with cold-like symptoms, patient would have been infected 4–14 days before onset of symptoms. Family gives history of fever, headache, runny nose, and rash. Patient might complain of arthralgia.	Fever, facial erythema or “slapped cheek” rash in first 1–4 days, followed by a generalized lacy rash that lasts 4–10 days and can be pruritic. Arthritis involving hands, feet or knees can be present, especially in adults.	<ul style="list-style-type: none"> • None: clinical diagnosis • Anti-Parvovirus B19 IgM antibody: positive
Roseola Infantum (Sixth disease)	Occurs most commonly in infants and children, 1 to 5 years. Family gives history of high fever for 3–5 days, then abrupt appearance of rash at defervescence which lasts for 1–3 days. Might have history of seizure with fever or mild upper respiratory symptoms, including runny nose and sore throat.	High fever, generalized rose-pink macular rash on trunk and proximal extremities, cervical or occipital lymphadenopathy, red papules and erosions of soft palate, and periorbital or eyelid edema. Patient can develop encephalopathy or aseptic meningitis.	<ul style="list-style-type: none"> • None: clinical diagnosis • Serum for anti-human herpes virus types 6 or 7 antibodies: positive
Epstein-Barr Virus (EBV) Infection	Occurs most commonly in young children and adolescents. Family gives history of fever, sore throat, malaise and headache, then rash at day 4–6 of illness.	Fever, lymphadenopathy, periorbital edema, hepatosplenomegaly, and morbilliform rash, initially on trunk and upper extremities which later extends to entire body. Genital ulceration can be noted.	<ul style="list-style-type: none"> • Monospot test: positive detects EBV heterophile IgM antibody • EBV viral capsid antigen: IgM positive in primary infection until 4–6 weeks, IgG appears in acute phase, peaks at 2–4 weeks, and then persists for life. • EBV nuclear antigen: antibody negative in primary infections • CBC: atypical lymphocytes \geq 10% • Liver function test: elevated AST and ALT

