Kawasaki disease (KD) represents systematic vasculitis of unknown etiology that typically occurs in childhood. Its most important complications are coronary artery changes described in 15 to 25% of untreated children. The diagnosis is based on fever criteria longer than five days and at least four additional criteria: polymorphic exanthema, changes in the extremities, mucosal changes in the oral cavity or on the lips, bilateral conjunctival injection and unilateral cervical lymphadenopathy. Affection of lungs is rare manifestation in KD and can present as pneumonia, pulmonary nodules, bronchopneumonia, hydropneumothorax and pleural effusion. During a ten year period, we treated 11 children diagnosed with KD in our clinic, of which KB presented with clinical and image-proven lung involvement during the acute phase.

CASE REPORT: Patient 1.: A 16 year old adolescent presented with persistent fever, cough, macular rash of the trunk and extremities, conjunctival injection and hepatosplenomegaly. Bilateral interstitial pneumonia with bilateral pleural effusion was radiologically confirmed. An MSCT of thorax was performed, in which nodular confluent consolidations and ground glass opacities, along with pleural effusion, were described. No cardiological manifestations occurred during acute phase or during follow up of the patient.

Patient 2.: A 6 year old boy presented with fever, abdominal pain, haemorrhagic diarrhoea, oedema of the eyelids, feet and hands, conjunctival injection and maculo-papular rash in the lower abdomen. Radiological and ultrasound findings showed alveolo-interstitial pneumonia with bilateral pleural effusion. Cardiological processing proved myocarditis, fusiform aneurysm of the right coronary artery and dilatation of the left coronary artery.

Patient 3.: A 5 year old girl presented with prolonged fever, inguinal lymphadenitis, oedema of the eyelids and lips, conjunctival injection, macular rash on the trunk and extremities and erythema multiforme on the abdomen. Chest x-ray and ultrasound verified right-sided supradiaphragmatic infiltration with minor bilateral pleural effusion. The course of the disease was complicated by multiorgan failure syndrome and the development of KD associated shock syndrome. Echocardiography verified changes on both coronary arteries.

Microbiological analysis was negative in all patients with KB and pulmonary manifestations. Pulmonary manifestations did not improve upon administration of antibiotic treatment. All patients answered positive to treatment with intravenous immunoglobulins and acetylsalicylic acid. Corticosteroids and additional intravenous immunoglobulins were administered in patient with KD associated shock.

Conclusion According to the literature, pulmonary manifestations have been described in 20 patients (1). Of these, seven had coronary artery changes, 10 patients had incomplete disease and seven patients requested an additional, second dose of intravenous immunoglobulins with or without corticosteroids. Although the etiology of pulmonary manifestations in