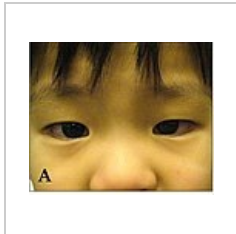


# Kawasaki disease

**Mucocutaneous lymph node syndrome** otherwise known as **Kawasaki disease** is a Vasculitis unknown etiologic. It causes multisystem inflammatory disease targeting small and medium size arteries, leading to a creation of aneurysms. The disease targets mainly children up to the age of 5 with a maximum between second and third year of age. The highest incidence is in Japan.<sup>[1]</sup> Asian children are affected 6 times more often than Caucasian ones. In the Czech Republic the incidence is guessed to be 1.6/100 000 children up to 5 years.<sup>[2]</sup>

## Clinical picture



Bilateral, non-exudative conjunctival injection



Changes to mucous membranes - red and swollen lips with vertical cracks and haemorrhaging, raspberry tongue



Erythema and tough swelling of hands and feet + swelling of PIP hand joints



Erythematous exanthema affecting perineum

## Acute phase

- Sudden fevers (over 40°C);
- bilateral non-purulent conjunctivitis;
- changes to mucous (dry, cracked lips, erythema of buccal mucosa and strawberry tongue);
- cervical Lymphadenopathy (more than 1.5cm in diameter) - in 70% of cases<sup>[1]</sup>;
- erythema and tough swelling of hands and feet + swelling of PIP hand joints<sup>[2]</sup>;
- polymorphic exanthema mostly in inguinal region and on thorax- in 80% of cases<sup>[1]</sup>;
- symptoms of acute myocarditis (sinus tachycardia, gallop rhythm, weak heart sounds)<sup>[2]</sup>;
- other: stomach pains, gallbladder hydrosis, pleocytosis in CSF, arthritis (middle size and large size joints);
- lasts 1-2 weeks<sup>[1]</sup>.

## Subacute phase

- Desquamation of skin (mainly of fingers);
- thrombocytosis (as much as  $10^{12}$ /liter)<sup>[2]</sup>;
- creation of aneurysms of coronary arteries - risk of Sudden death;
  - risk factors: prolonged fevers, prolonged elevation of inflammation markers, age under 1 year, male sex;
- lasts till the fourth week<sup>[1]</sup>.

## Recovery phase

- From disappearance of clinical symptoms to decline of inflammation markers to normal (usually 6-8 weeks from the first symptoms);
- the Beau's lines can appear on nails during this phase<sup>[1]</sup>.

## Diagnostics

- Exclude other causes of fever (infection);
- Hemoculture, cultivation of urine, thorax X-RAY;
- heightened inflammation markers, thrombocytosis;
- Lumbar puncture (to exclude infection) - pleocytosis;
- echo - evidence of aneurysms of coronary arteries<sup>[1]</sup>.

## Diagnostic criteria

- Fever lasting longer than 5 days and minimally 4 of the following:
  - bilateral non-purulent conjunctivitis;
  - reddened, dry cracked lips, raspberry tongue, ...;
  - peripheral erythema, peripheral edema, peeling of skin on fingers, generalized desquamation;

- polymorphic exanthema on the abdomen, the thorax and the area of genitals;
- cervical lymphadenopathy (over 1,5 cm in average)<sup>[1]</sup>.

## Treatment

- i. v. immunoglobulin (IVIG);
- Acetylsalicylic acid (Aspirin) in anti-inflammation dose (80–100mg/kg/den) in acute phase and in antiaggregating dose (3–5mg/kg/den) in other phases<sup>[1]</sup>.

## References

### Related articles

- Systemic vasculitis

### Reference

1. KLIEGMAN, Robert M. – MARCDANTE, Karen J. – JENSON, Hal B.. *Nelson Essentials of Pediatrics*. 1. edition. China : Elsevier Saunders, 2006. 5; pp. 430-432. ISBN 978-0-8089-2325-1.
2. JEHLÍČKA, Petr – LÁD, Václav – SEDLÁČEK, Dalibor. Kawasakiho syndrom. *Pediatric pro praxi* [online]. 2008, y. 9, p. 12-14, Available from <<http://www.pediatrpropraxi.cz/artkey/ped-200801-0003.php>>. ISSN 1803-5264.

### External links

- Podcast o Kawasakiho nemoci (<http://kardioblogie.blogspot.com/2012/12/podcast-5-dalsi-exkurze-do-pediatric.html>)
- DermNet Kawasaki disease (<https://www.dermnetnz.org/topics/kawasaki-disease/>)
- Kawasaki disease - video na youtube.com (<https://www.youtube.com/watch?v=sTyDHTUCw48>)