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**1. SARS-CoV-2-related paediatric inflammatory multisystem syndrome, an epidemiological study, France, 1 March to 17 May 2020.**

**Author(s):** Belot, Alexandre; Antona, Denise; Renolleau, Sylvain; Javouhey, Etienne; Hentgen, Véronique; Angoulvant, François; Delacourt, Christophe; Iriart, Xavier; Ovaert, Caroline; Bader-Meunier, Brigitte; Kone-Paut, Isabelle; Levy-Bruhl, Daniel

**Source:** Euro surveillance : bulletin Europeen sur les maladies transmissibles = European communicable disease bulletin; Jun 2020; vol. 25 (no. 22)

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32524957

Available at  [Euro surveillance : bulletin Europeen sur les maladies transmissibles = European communicable disease bulletin](http://europepmc.org/search?query=(DOI:10.2807/1560-7917.ES.2020.25.22.2001010))  - from Europe PubMed Central - Open Access

Available at  [Euro surveillance : bulletin Europeen sur les maladies transmissibles = European communicable disease bulletin](http://search.ebscohost.com/login.aspx?direct=true&scope=site&site=ehost-live&db=mdc&AN=32524957)  - from EBSCO (MEDLINE Complete)

Available at  [Euro surveillance : bulletin Europeen sur les maladies transmissibles = European communicable disease bulletin](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Euro surveillance : bulletin Europeen sur les maladies transmissibles = European communicable disease bulletin](https://www.eurosurveillance.org/deliver/fulltext/eurosurveillance/25/22/eurosurv-25-22-1.pdf?itemId=%2Fcontent%2F10.2807%2F1560-7917.ES.2020.25.22.2001010&mimeType=pdf&containerItemId=content/eurosurveillance)  - from Unpaywall

**Abstract:** End of April 2020, French clinicians observed an increase in cases presenting with paediatric inflammatory multisystem syndrome (PIMS). Nationwide surveillance was set up and demonstrated temporospatial association with the coronavirus disease (COVID-19) epidemic for 156 reported cases as at 17 May: 108 were classified as confirmed (n = 79), probable (n = 16) or possible (n = 13) post-COVID-19 PIMS cases. A continuum of clinical features from Kawasaki-like disease to myocarditis was observed, requiring intensive care in 67% of cases.

**Database:** Medline

**2. Paediatric Inflammatory Multisystem Syndrome: Temporally Associated with SARS-CoV-2 (PIMS-TS): Cardiac Features, Management and Short-Term Outcomes at a UK Tertiary Paediatric Hospital.**

**Author(s):** Ramcharan, Tristan; Nolan, Oscar; Lai, Chui Yi; Prabhu, Nanda; Krishnamurthy, Raghu; Richter, Alex G; Jyothish, Deepthi; Kanthimathinathan, Hari Krishnan; Welch, Steven B; Hackett, Scott; Al-Abadi, Eslam; Scholefield, Barnaby R; Chikermane, Ashish

**Source:** Pediatric cardiology; Jun 2020

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32529358

Available at  [Pediatric cardiology](http://www.uhl-library.nhs.uk/directpages/gh.html)  - from Glenfield Hospital Library Local Print Collection [location] : Glenfield Library.

Available at  [Pediatric cardiology](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Pediatric cardiology](https://link.springer.com/content/pdf/10.1007/s00246-020-02391-2.pdf)  - from Unpaywall

**Abstract:** Children were relatively spared during COVID-19 pandemic. However, the recently reported hyperinflammatory syndrome with overlapping features of Kawasaki disease and toxic shock syndrome-"Paediatric Inflammatory Multisystem Syndrome-temporally associated with SARS-CoV-2" (PIMS-TS) has caused concern. We describe cardiac findings and short-term outcomes in children with PIMS-TS at a tertiary children's hospital. Single-center observational study of children with PIMS-TS from 10th April to 9th May 2020. Data on ECG and echocardiogram were retrospectively analyzed along with demographics, clinical features and blood parameters. Fifteen children with median age of 8.8 (IQR 6.4-11.2) years were included, all were from African/Afro-Caribbean, South Asian, Mixed or other minority ethnic groups. All showed raised inflammatory/cardiac markers (CRP, ferritin, Troponin I, CK and pro-BNP). Transient valve regurgitation was present in 10 patients (67%). Left Ventricular ejection fraction was reduced in 12 (80%), fractional shortening in 8 (53%) with resolution in all but 2. Fourteen (93%) had coronary artery abnormalities, with normalization in 6. ECG abnormalities were present in 9 (60%) which normalized in 6 by discharge. Ten (67%) needed inotropes and/or vasopressors. None needed extracorporeal life support. Improvement in cardiac biochemical markers was closely followed by improvement in ECG/echocardiogram. All patients were discharged alive and twelve (80%) have been reviewed since. Our entire cohort with PIMS-TS had cardiac involvement and this degree of involvement is significantly more than other published series and emphasizes the need for specialist cardiac review. We believe that our multi-disciplinary team approach was crucial for the good short-term outcomes.

**Database:** Medline

**3. Clinical Characteristics of 58 Children With a Pediatric Inflammatory Multisystem Syndrome Temporally Associated With SARS-CoV-2.**

**Author(s):** Whittaker, Elizabeth; Bamford, Alasdair; Kenny, Julia; Kaforou, Myrsini; Jones, Christine E; Shah, Priyen; Ramnarayan, Padmanabhan; Fraisse, Alain; Miller, Owen; Davies, Patrick; Kucera, Filip; Brierley, Joe; McDougall, Marilyn; Carter, Michael; Tremoulet, Adriana; Shimizu, Chisato; Herberg, Jethro; Burns, Jane C; Lyall, Hermione; Levin, Michael; PIMS-TS Study Group and EUCLIDS and PERFORM Consortia

**Source:** JAMA; Jun 2020

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32511692

Available at  [JAMA](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [JAMA](https://jamanetwork.com/journals/jama/articlepdf/2767209/jama_whittaker_2020_oi_200067.pdf)  - from Unpaywall

**Abstract:** ImportanceIn communities with high rates of coronavirus disease 2019, reports have emerged of children with an unusual syndrome of fever and inflammation.ObjectivesTo describe the clinical and laboratory characteristics of hospitalized children who met criteria for the pediatric inflammatory multisystem syndrome temporally associated with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (PIMS-TS) and compare these characteristics with other pediatric inflammatory disorders.Design, Setting, and ParticipantsCase series of 58 children from 8 hospitals in England admitted between March 23 and May 16, 2020, with persistent fever and laboratory evidence of inflammation meeting published definitions for PIMS-TS. The final date of follow-up was May 22, 2020. Clinical and laboratory characteristics were abstracted by medical record review, and were compared with clinical characteristics of patients with Kawasaki disease (KD) (n = 1132), KD shock syndrome (n = 45), and toxic shock syndrome (n = 37) who had been admitted to hospitals in Europe and the US from 2002 to 2019.ExposuresSigns and symptoms and laboratory and imaging findings of children who met definitional criteria for PIMS-TS from the UK, the US, and World Health Organization.Main Outcomes and MeasuresClinical, laboratory, and imaging characteristics of children meeting definitional criteria for PIMS-TS, and comparison with the characteristics of other pediatric inflammatory disorders.ResultsFifty-eight children (median age, 9 years [interquartile range {IQR}, 5.7-14]; 33 girls [57%]) were identified who met the criteria for PIMS-TS. Results from SARS-CoV-2 polymerase chain reaction tests were positive in 15 of 58 patients (26%) and SARS-CoV-2 IgG test results were positive in 40 of 46 (87%). In total, 45 of 58 patients (78%) had evidence of current or prior SARS-CoV-2 infection. All children presented with fever and nonspecific symptoms, including vomiting (26/58 [45%]), abdominal pain (31/58 [53%]), and diarrhea (30/58 [52%]). Rash was present in 30 of 58 (52%), and conjunctival injection in 26 of 58 (45%) cases. Laboratory evaluation was consistent with marked inflammation, for example, C-reactive protein (229 mg/L [IQR, 156-338], assessed in 58 of 58) and ferritin (610 μg/L [IQR, 359-1280], assessed in 53 of 58). Of the 58 children, 29 developed shock (with biochemical evidence of myocardial dysfunction) and required inotropic support and fluid resuscitation (including 23/29 [79%] who received mechanical ventilation); 13 met the American Heart Association definition of KD, and 23 had fever and inflammation without features of shock or KD. Eight patients (14%) developed coronary artery dilatation or aneurysm. Comparison of PIMS-TS with KD and with KD shock syndrome showed differences in clinical and laboratory features, including older age (median age, 9 years [IQR, 5.7-14] vs 2.7 years [IQR, 1.4-4.7] and 3.8 years [IQR, 0.2-18], respectively), and greater elevation of inflammatory markers such as C-reactive protein (median, 229 mg/L [IQR 156-338] vs 67 mg/L [IQR, 40-150 mg/L] and 193 mg/L [IQR, 83-237], respectively).Conclusions and RelevanceIn this case series of hospitalized children who met criteria for PIMS-TS, there was a wide spectrum of presenting signs and symptoms and disease severity, ranging from fever and inflammation to myocardial injury, shock, and development of coronary artery aneurysms. The comparison with patients with KD and KD shock syndrome provides insights into this syndrome, and suggests this disorder differs from other pediatric inflammatory entities.

**Database:** Medline

**4. COVID-19 Multisystem Inflammatory Syndrome in Three Teenagers with Confirmed SARS-CoV-2 Infection.**

**Author(s):** Ng, Khuen Foong; Kothari, Trishul; Bandi, Srini; Bird, Paul William; Goyal, Kanika; Zoha, Mohammad; Rai, Vinayak; Tang, Julian Wei-Tze

**Source:** Journal of medical virology; Jun 2020

**Publication Date:** Jun 2020

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**PubMedID:** 32568434

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Available at  [Journal of medical virology](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Journal of medical virology](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

**Abstract:** Coronavirus Disease 2019 (COVID-19) is generally a relatively mild illness in children. An emerging disease entity coined as pediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2 (PIMS-TS) has been reported recently, but is very rare and only affects very small minority of children. Here we describe the clinical presentations and outcomes of three teenagers with serologically-confirmed SARS-CoV-2 infection admitted to pediatric intensive care unit for PIMS-TS. Although their initial presentations were very similar, their COVID-19-related disease varied in severity. This article is protected by copyright. All rights reserved.

**Database:** Medline

**5. Serology confirms SARS-CoV-2 infection in PCR-negative children presenting with Paediatric Inflammatory Multi-System Syndrome.**

**Author(s):** Perez-Toledo, Marisol; Faustini, Sian E; Jossi, Sian E; Shields, Adrian M; Kanthimathinathan, Hari Krishnan; Allen, Joel D; Watanabe, Yasunori; Goodall, Margaret; Wraith, David C; Veenith, Tonny V; Drayson, Mark T; Jyothish, Deepthi; Al-Abadi, Eslam; Chikermane, Ashish; Welch, Steven B; Masilamani, Kavitha; Hackett, Scott; Crispin, Max; Scholefield, Barnaby R; Cunningham, Adam F; Richter, Alex G

**Source:** medRxiv : the preprint server for health sciences; Jun 2020

**Publication Date:** Jun 2020

**Publication Type(s):** Preprint

**PubMedID:** 32577677

Available at  [medRxiv : the preprint server for health sciences](https://www.medrxiv.org/content/medrxiv/early/2020/06/07/2020.06.05.20123117.full.pdf)  - from Unpaywall

**Abstract:** BackgroundDuring the COVID-19 outbreak, reports have surfaced of children who present with features of a multisystem inflammatory syndrome with overlapping features of Kawasaki disease and toxic shock syndrome - Paediatric Inflammatory Multisystem Syndrome- temporally associated with SARS-CoV-2 pandemic (PIMS-TS). Initial reports find that many of the children are PCR-negative for SARS-CoV-2, so it is difficult to confirm whether this syndrome is a late complication of viral infection in an age group largely spared the worst consequences of this infection, or if this syndrome reflects enhanced surveillance.MethodsChildren hospitalised for symptoms consistent with PIMS-TS between 28 April and 8 May 2020, and who were PCR-negative for SARS-CoV-2, were tested for antibodies to viral spike glycoprotein using an ELISA test.ResultsEight patients (age range 7-14 years, 63% male) fulfilled case-definition for PIMS-TS during the study period. Six of the eight patients required admission to intensive care. All patients exhibited significant IgG and IgA responses to viral spike glycoprotein. Further assessment showed that the IgG isotypes detected in children with PIMS-TS were of the IgG1 and IgG3 subclasses, a distribution similar to that observed in samples from hospitalised adult COVID-19 patients. In contrast, IgG2 and IgG4 were not detected in children or adults. IgM was not detected in children, which contrasts with adult hospitalised adult COVID-19 patients of whom all had positive IgM responses.ConclusionsStrong IgG antibody responses can be detected in PCR-negative children with PIMS-TS. The low detection rate of IgM in these patients is consistent with infection having occurred weeks previously and that the syndrome onset occurs well after the control of SARS-CoV-2 viral load. This implies that the disease is largely immune-mediated. Lastly, this indicates that serology can be an appropriate diagnostic tool in select patient groups.

**Database:** Medline

**6. An outbreak of severe Kawasaki-like disease at the Italian epicentre of the SARS-CoV-2 epidemic: an observational cohort study.**

**Author(s):** Verdoni, Lucio; Mazza, Angelo; Gervasoni, Annalisa; Martelli, Laura; Ruggeri, Maurizio; Ciuffreda, Matteo; Bonanomi, Ezio; D'Antiga, Lorenzo

**Source:** Lancet (London, England); Jun 2020; vol. 395 (no. 10239); p. 1771-1778

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article Observational Study

**PubMedID:** 32410760

Available at  [Lancet (London, England)](http://www.uhl-library.nhs.uk/directpages/lgh.html)  - from Leicester General Hospital Library Local Print Collection [location] : Leicester General Library. [title\_notes] : Issues before 2000 held in Archive.

Available at  [Lancet (London, England)](http://www.uhl-library.nhs.uk/directpages/lri.html)  - from LRI Library Local Full Text Collection [location] : LRI Library.

Available at  [Lancet (London, England)](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Lancet (London, England)](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [Lancet (London, England)](https://doi.org/10.1016/s0140-6736(20)31103-x)  - from Unpaywall

**Abstract:** BACKGROUNDThe Bergamo province, which is extensively affected by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) epidemic, is a natural observatory of virus manifestations in the general population. In the past month we recorded an outbreak of Kawasaki disease; we aimed to evaluate incidence and features of patients with Kawasaki-like disease diagnosed during the SARS-CoV-2 epidemic.METHODSAll patients diagnosed with a Kawasaki-like disease at our centre in the past 5 years were divided according to symptomatic presentation before (group 1) or after (group 2) the beginning of the SARS-CoV-2 epidemic. Kawasaki- like presentations were managed as Kawasaki disease according to the American Heart Association indications. Kawasaki disease shock syndrome (KDSS) was defined by presence of circulatory dysfunction, and macrophage activation syndrome (MAS) by the Paediatric Rheumatology International Trials Organisation criteria. Current or previous infection was sought by reverse-transcriptase quantitative PCR in nasopharyngeal and oropharyngeal swabs, and by serological qualitative test detecting SARS-CoV-2 IgM and IgG, respectively.FINDINGSGroup 1 comprised 19 patients (seven boys, 12 girls; aged 3·0 years [SD 2·5]) diagnosed between Jan 1, 2015, and Feb 17, 2020. Group 2 included ten patients (seven boys, three girls; aged 7·5 years [SD 3·5]) diagnosed between Feb 18 and April 20, 2020; eight of ten were positive for IgG or IgM, or both. The two groups differed in disease incidence (group 1 vs group 2, 0·3 vs ten per month), mean age (3·0 vs 7·5 years), cardiac involvement (two of 19 vs six of ten), KDSS (zero of 19 vs five of ten), MAS (zero of 19 vs five of ten), and need for adjunctive steroid treatment (three of 19 vs eight of ten; all p<0·01).INTERPRETATIONIn the past month we found a 30-fold increased incidence of Kawasaki-like disease. Children diagnosed after the SARS-CoV-2 epidemic began showed evidence of immune response to the virus, were older, had a higher rate of cardiac involvement, and features of MAS. The SARS-CoV-2 epidemic was associated with high incidence of a severe form of Kawasaki disease. A similar outbreak of Kawasaki-like disease is expected in countries involved in the SARS-CoV-2 epidemic.FUNDINGNone.

**Database:** Medline

**7. Acute myocarditis and multisystem inflammatory emerging disease following SARS-CoV-2 infection in critically ill children.**

**Author(s):** Grimaud, Marion; Starck, Julie; Levy, Michael; Marais, Clémence; Chareyre, Judith; Khraiche, Diala; Leruez-Ville, Marianne; Quartier, Pierre; Léger, Pierre Louis; Geslain, Guillaume; Semaan, Nada; Moulin, Florence; Bendavid, Matthieu; Jean, Sandrine; Poncelet, Géraldine; Renolleau, Sylvain; Oualha, Mehdi

**Source:** Annals of intensive care; Jun 2020; vol. 10 (no. 1); p. 69

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32488505

Available at  [Annals of intensive care](http://europepmc.org/search?query=(DOI:10.1186/s13613-020-00690-8))  - from Europe PubMed Central - Open Access

Available at  [Annals of intensive care](http://gateway.proquest.com/openurl?ctx_ver=Z39.88-2004&res_id=xri:pqm&req_dat=xri:pqil:pq_clntid=47856&rft_val_fmt=ori/fmt:kev:mtx:journal&genre=article&issn=2110-5820&volume=10&issue=1&spage=69)  - from ProQuest (Health Research Premium) - NHS Version

Available at  [Annals of intensive care](https://annalsofintensivecare.springeropen.com/track/pdf/10.1186/s13613-020-00690-8)  - from Unpaywall

**Abstract:** BACKGROUNDA recent increase in children admitted with hypotensive shock and fever in the context of the COVID-19 outbreak requires an urgent characterization and assessment of the involvement of SARS-CoV-2 infection. This is a case series performed at 4 academic tertiary care centers in Paris of all the children admitted to the pediatric intensive care unit (PICU) with shock, fever and suspected SARS-CoV-2 infection between April 15th and April 27th, 2020.RESULTS20 critically ill children admitted for shock had an acute myocarditis (left ventricular ejection fraction, 35% (25-55); troponin, 269 ng/mL (31-4607)), and arterial hypotension with mainly vasoplegic clinical presentation. The first symptoms before PICU admission were intense abdominal pain and fever for 6 days (1-10). All children had highly elevated C-reactive protein (> 94 mg/L) and procalcitonin (> 1.6 ng/mL) without microbial cause. At least one feature of Kawasaki disease was found in all children (fever, n = 20, skin rash, n = 10; conjunctivitis, n = 6; cheilitis, n = 5; adenitis, n = 2), but none had the typical form. SARS-CoV-2 PCR and serology were positive for 10 and 15 children, respectively. One child had both negative SARS-CoV-2 PCR and serology, but had a typical SARS-CoV-2 chest tomography scan. All children but one needed an inotropic/vasoactive drug support (epinephrine, n = 12; milrinone, n = 10; dobutamine, n = 6, norepinephrine, n = 4) and 8 were intubated. All children received intravenous immunoglobulin (2 g per kilogram) with adjuvant corticosteroids (n = 2), IL 1 receptor antagonist (n = 1) or a monoclonal antibody against IL-6 receptor (n = 1). All children survived and were afebrile with a full left ventricular function recovery at PICU discharge.CONCLUSIONSAcute myocarditis with intense systemic inflammation and atypical Kawasaki disease is an emerging severe pediatric disease following SARS-CoV-2 infection. Early recognition of this disease is needed and referral to an expert center is recommended. A delayed and inappropriate host immunological response is suspected. While underlying mechanisms remain unclear, further investigations are required to target an optimal treatment.

**Database:** Medline

**8. Paediatric multisystem inflammatory syndrome temporally associated with SARS-CoV-2 mimicking Kawasaki disease (Kawa-COVID-19): a multicentre cohort.**

**Author(s):** Pouletty, Marie; Borocco, Charlotte; Ouldali, Naim; Caseris, Marion; Basmaci, Romain; Lachaume, Noémie; Bensaid, Philippe; Pichard, Samia; Kouider, Hanane; Morelle, Guillaume; Craiu, Irina; Pondarre, Corinne; Deho, Anna; Maroni, Arielle; Oualha, Mehdi; Amoura, Zahir; Haroche, Julien; Chommeloux, Juliette; Bajolle, Fanny; Beyler, Constance; Bonacorsi, Stéphane; Carcelain, Guislaine; Koné-Paut, Isabelle; Bader-Meunier, Brigitte; Faye, Albert; Meinzer, Ulrich; Galeotti, Caroline; Melki, Isabelle

**Source:** Annals of the rheumatic diseases; Jun 2020

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32527868

Available at  [Annals of the rheumatic diseases](https://go.openathens.net/redirector/nhs?url=https%3A%2F%2Fard.bmj.com%2Flookup%2Fdoi%2F10.1136%2Fannrheumdis-2020-217960)  - from BMJ Journals - NHS

Available at  [Annals of the rheumatic diseases](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Annals of the rheumatic diseases](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [Annals of the rheumatic diseases](https://ard.bmj.com/content/annrheumdis/early/2020/06/11/annrheumdis-2020-217960.full.pdf)  - from Unpaywall

**Abstract:** BACKGROUNDCurrent data suggest that COVID-19 is less frequent in children, with a milder course. However, over the past weeks, an increase in the number of children presenting to hospitals in the greater Paris region with a phenotype resembling Kawasaki disease (KD) has led to an alert by the French national health authorities.METHODSMulticentre compilation of patients with KD in Paris region since April 2020, associated with the detection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) ('Kawa-COVID-19'). A historical cohort of 'classical' KD served as a comparator.RESULTSSixteen patients were included (sex ratio=1, median age 10 years IQR (4·7 to 12.5)). SARS-CoV-2 was detected in 12 cases (69%), while a further three cases had documented recent contact with a quantitative PCR-positive individual (19%). Cardiac involvement included myocarditis in 44% (n=7). Factors prognostic for the development of severe disease (ie, requiring intensive care, n=7) were age over 5 years and ferritinaemia >1400 µg/L. Only five patients (31%) were successfully treated with a single intravenous immunoglobulin (IVIg) infusion, while 10 patients (62%) required a second line of treatment. The Kawa-COVID-19 cohort differed from a comparator group of 'classical' KD by older age at onset 10 vs 2 years (p<0.0001), lower platelet count (188 vs 383 G/L (p<0.0001)), a higher rate of myocarditis 7/16 vs 3/220 (p=0.0001) and resistance to first IVIg treatment 10/16 vs 45/220 (p=0.004).CONCLUSIONKawa-COVID-19 likely represents a new systemic inflammatory syndrome temporally associated with SARS-CoV-2 infection in children. Further prospective international studies are necessary to confirm these findings and better understand the pathophysiology of Kawa-COVID-19. Trial registration number NCT02377245.

**Database:** Medline

**9. SARS-CoV-2, which induces COVID-19, causes kawasaki-like disease in children: role of pro-inflammatory and anti-inflammatory cytokines.**

**Author(s):** Ronconi, G; Teté, G; Kritas, S K; Gallenga, C E; Caraffa, Al; Ross, R; Conti, P

**Source:** Journal of biological regulators and homeostatic agents; Jun 2020; vol. 34 (no. 3)

**Publication Date:** Jun 2020

**Publication Type(s):** Editorial

**PubMedID:** 32476380

Available at  [Journal of biological regulators and homeostatic agents](http://search.ebscohost.com/login.aspx?direct=true&scope=site&site=ehost-live&db=mdc&AN=32476380)  - from EBSCO (MEDLINE Complete)

Available at  [Journal of biological regulators and homeostatic agents](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

**Abstract:** Acute severe respiratory syndrome coronavirus-2 (SARS-CoV-2) caused a global pandemic coronavirus disease 2019 (COVID-19). In humans, SARS-CoV-2 infection leads to acute respiratory distress syndrome which presents edema, hemorrhage, intra-alveolar fibrin deposition, and vascular changes characterized by thrombus formation, micro-angiopathy and thrombosis. These clinical signs are mediated by pro-inflammatory cytokines. In recent studies it has been noted that COVID-19 pandemic can affect patients of all ages, including children (even if less severely) who were initially thought to be immune. Kawasaki disease is an autoimmune acute febrile inflammatory condition, which primarily affects young children. The disease can present immunodeficiency with the inability of the immune system to fight inflammatory pathogens and leads to fever, rash, alterations of the mucous membranes, conjunctiva infection, pharyngeal erythema, adenopathy, and inflammation. In the COVID-19 period, virus infection aggravates the condition of Kawasaki disease, but it has also been noted that children affected by SARS-V-2 may develop a disease similar to Kawasaki's illness. However, it is uncertain whether the virus alone can give Kawasaki disease-like forms. As in COVID-19, Kawasaki disease and its similar forms are mediated by pro-inflammatory cytokines produced by innate immunity cells such as macrophages and mast cells (MCs). In light of the above, it is therefore pertinent to think that by blocking pro-inflammatory cytokines with new anti-inflammatory cytokines, such as IL-37 and IL-38, it is possible to alleviate the symptoms of the disease and have a new available therapeutic tool. However, since Kawasaki and Kawasaki-like diseases present immunodeficiency, treatment with anti-inflammatory/immunosuppressant molecules must be applied very carefully.

**Database:** Medline

**10. Kawasaki-like multisystem inflammatory syndrome in children during the covid-19 pandemic in Paris, France: prospective observational study.**

**Author(s):** Toubiana, Julie; Poirault, Clément; Corsia, Alice; Bajolle, Fanny; Fourgeaud, Jacques; Angoulvant, François; Debray, Agathe; Basmaci, Romain; Salvador, Elodie; Biscardi, Sandra; Frange, Pierre; Chalumeau, Martin; Casanova, Jean-Laurent; Cohen, Jérémie F; Allali, Slimane

**Source:** BMJ (Clinical research ed.); Jun 2020; vol. 369 ; p. m2094

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article Observational Study

**PubMedID:** 32493739

Available at  [BMJ (Clinical research ed.)](https://go.openathens.net/redirector/nhs?url=https%3A%2F%2Fwww.bmj.com%2Flookup%2Fdoi%2F10.1136%2Fbmj.m2094)  - from BMJ Journals - NHS

Available at  [BMJ (Clinical research ed.)](https://www.bmj.com/content/bmj/369/bmj.m2094.full.pdf)  - from Unpaywall

**Abstract:** OBJECTIVESTo describe the characteristics of children and adolescents affected by an outbreak of Kawasaki-like multisystem inflammatory syndrome and to evaluate a potential temporal association with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection.DESIGNProspective observational study.SETTINGGeneral paediatric department of a university hospital in Paris, France.PARTICIPANTS21 children and adolescents (aged ≤18 years) with features of Kawasaki disease who were admitted to hospital between 27 April and 11 May 2020 and followed up until discharge by 15 May 2020.MAIN OUTCOME MEASURESThe primary outcomes were clinical and biological data, imaging and echocardiographic findings, treatment, and outcomes. Nasopharyngeal swabs were prospectively tested for SARS-CoV-2 using reverse transcription-polymerase chain reaction (RT-PCR) and blood samples were tested for IgG antibodies to the virus.RESULTS21 children and adolescents (median age 7.9 (range 3.7-16.6) years) were admitted with features of Kawasaki disease over a 15 day period, with 12 (57%) of African ancestry. 12 (57%) presented with Kawasaki disease shock syndrome and 16 (76%) with myocarditis. 17 (81%) required intensive care support. All 21 patients had noticeable gastrointestinal symptoms during the early stage of illness and high levels of inflammatory markers. 19 (90%) had evidence of recent SARS-CoV-2 infection (positive RT-PCR result in 8/21, positive IgG antibody detection in 19/21). All 21 patients received intravenous immunoglobulin and 10 (48%) also received corticosteroids. The clinical outcome was favourable in all patients. Moderate coronary artery dilations were detected in 5 (24%) of the patients during hospital stay. By 15 May 2020, after 8 (5-17) days of hospital stay, all patients were discharged home.CONCLUSIONSThe ongoing outbreak of Kawasaki-like multisystem inflammatory syndrome among children and adolescents in the Paris area might be related to SARS-CoV-2. In this study an unusually high proportion of the affected children and adolescents had gastrointestinal symptoms, Kawasaki disease shock syndrome, and were of African ancestry.

**Database:** Medline

**11. Human and novel coronavirus infections in children: a review.**

**Author(s):** Rajapakse, Nipunie; Dixit, Devika

**Source:** Paediatrics and international child health; Jun 2020 ; p. 1-20

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32584199

**Abstract:** Coronaviruses, seven of which are known to infect humans, can cause a spectrum of clinical presentations ranging from asymptomatic infection to severe illness and death. Four human coronaviruses (hCoVs)-229E, HKU1, NL63 and OC43-circulate globally, commonly infect children and typically cause mild upper respiratory tract infections. Three novel coronaviruses of zoonotic origin have emerged during the past two decades: severe acute respiratory syndrome coronavirus (SARS-CoV-1), Middle East respiratory syndrome coronavirus (MERS-CoV) and the recently discovered severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) which is the cause of the ongoing coronavirus disease 2019 (COVID-19) pandemic. These novel coronaviruses are known to cause severe illness and death predominantly in older adults and those with underlying comorbidities. Consistent with what has been observed during the outbreaks of SARS and MERS, children with COVID-19 are more likely to be asymptomatic or to have mild-to-moderate illness, with few deaths reported in children globally thus far. Clinical symptoms and laboratory and radiological abnormalities in children have been similar to those reported in adults but are generally less severe. A rare multisystem inflammatory syndrome in children (MIS-C) which has resulted in critical illness and some deaths has recently been described. Clinical trials for therapeutics and vaccine development should include paediatric considerations. Children may play an important role in the transmission of infection and outbreak dynamics and could be a key target population for effective measures to control outbreaks. The unintended consequences of the unprecedented scale and duration of pandemic control measures for children and families around the world should be carefully examined.ABBREVIATIONS2019-nCoV, 2019 novel coronavirus; ADEM, acute demyelinating encephalomyelitis; AAP, American Academy of Pediatrics; ACE-2, angiotensin-converting enzyme 2; ARDS, acute respiratory distress syndrome; BCG, bacillus Calmette-Guérin; BNP, brain natriuretic peptide; CDC, Centers for Disease Control and Prevention; CRP, C-reactive protein; CSF, cerebrospinal fluid; COVID-19, coronavirus disease 2019; CT, computed tomography; CXR, chest X-ray; DOL, day of life; hCoV, human coronavirus; ICU, intensive care unit; IL, interleukin; IVIG, intravenous immunoglobulin; KD, Kawasaki disease; LDH, lactate dehydrogenase; MERS, Middle East respiratory syndrome; MERS-CoV, Middle East respiratory syndrome coronavirus; MEURI, monitored emergency use of unregistered and experimental interventions; MIS-C, multi-system inflammatory syndrome in children; PCR, polymerase chain reaction; PICU, paediatric intensive care unit; RNA, ribonucleic acid; RCT, randomised-controlled trial; RSV, respiratory syncytial virus; SARS, severe acute respiratory syndrome; SARS-CoV-1, severe acute respiratory syndrome coronavirus 1; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2; TNF-alpha, tumour necrosis factor alpha; UK United Kingdom; UNICEF, United Nations Children's Fund; USA, United States of America; WHO, World Health Organization.

**Database:** Medline

**12. Multisystem Inflammatory Syndrome in U.S. Children and Adolescents.**

**Author(s):** Feldstein, Leora R; Rose, Erica B; Horwitz, Steven M; Collins, Jennifer P; Newhams, Margaret M; Son, Mary Beth F; Newburger, Jane W; Kleinman, Lawrence C; Heidemann, Sabrina M; Martin, Amarilis A; Singh, Aalok R; Li, Simon; Tarquinio, Keiko M; Jaggi, Preeti; Oster, Matthew E; Zackai, Sheemon P; Gillen, Jennifer; Ratner, Adam J; Walsh, Rowan F; Fitzgerald, Julie C; Keenaghan, Michael A; Alharash, Hussam; Doymaz, Sule; Clouser, Katharine N; Giuliano, John S; Gupta, Anjali; Parker, Robert M; Maddux, Aline B; Havalad, Vinod; Ramsingh, Stacy; Bukulmez, Hulya; Bradford, Tamara T; Smith, Lincoln S; Tenforde, Mark W; Carroll, Christopher L; Riggs, Becky J; Gertz, Shira J; Daube, Ariel; Lansell, Amanda; Coronado Munoz, Alvaro; Hobbs, Charlotte V; Marohn, Kimberly L; Halasa, Natasha B; Patel, Manish M; Randolph, Adrienne G

**Source:** The New England journal of medicine; Jun 2020

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32598831

Available at  [The New England journal of medicine](https://go.openathens.net/redirector/nhs?url=http%3A%2F%2Fovidsp.ovid.com%2Fovidweb.cgi%3FT%3DJS%26PAGE%3Dfulltext%26D%3Dovft%26CSC%3DY%26NEWS%3DN%26SEARCH%3D%2210.1056%2FNEJMoa2021680%22.di)  - from Ovid (Journals @ Ovid)

Available at  [The New England journal of medicine](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [The New England journal of medicine](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

**Abstract:** BACKGROUNDUnderstanding the epidemiology and clinical course of multisystem inflammatory syndrome in children (MIS-C) and its temporal association with coronavirus disease 2019 (Covid-19) is important, given the clinical and public health implications of the syndrome.METHODSWe conducted targeted surveillance for MIS-C from March 15 to May 20, 2020, in pediatric health centers across the United States. The case definition included six criteria: serious illness leading to hospitalization, an age of less than 21 years, fever that lasted for at least 24 hours, laboratory evidence of inflammation, multisystem organ involvement, and evidence of infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) based on reverse-transcriptase polymerase chain reaction (RT-PCR), antibody testing, or exposure to persons with Covid-19 in the past month. Clinicians abstracted the data onto standardized forms.RESULTSWe report on 186 patients with MIS-C in 26 states. The median age was 8.3 years, 115 patients (62%) were male, 135 (73%) had previously been healthy, 131 (70%) were positive for SARS-CoV-2 by RT-PCR or antibody testing, and 164 (88%) were hospitalized after April 16, 2020. Organ-system involvement included the gastrointestinal system in 171 patients (92%), cardiovascular in 149 (80%), hematologic in 142 (76%), mucocutaneous in 137 (74%), and respiratory in 131 (70%). The median duration of hospitalization was 7 days (interquartile range, 4 to 10); 148 patients (80%) received intensive care, 37 (20%) received mechanical ventilation, 90 (48%) received vasoactive support, and 4 (2%) died. Coronary-artery aneurysms (z scores ≥2.5) were documented in 15 patients (8%), and Kawasaki's disease-like features were documented in 74 (40%). Most patients (171 [92%]) had elevations in at least four biomarkers indicating inflammation. The use of immunomodulating therapies was common: intravenous immune globulin was used in 144 (77%), glucocorticoids in 91 (49%), and interleukin-6 or 1RA inhibitors in 38 (20%).CONCLUSIONSMultisystem inflammatory syndrome in children associated with SARS-CoV-2 led to serious and life-threatening illness in previously healthy children and adolescents. (Funded by the Centers for Disease Control and Prevention.).

**Database:** Medline

**13. COVID19: potential cardiovascular issues in pediatric patients.**

**Author(s):** Bertoncelli, Deborah; Guidarini, Marta; Della Greca, Anna; Ratti, Chiara; Falcinella, Francesca; Iovane, Brunella; Dutto, Mauro Luigi; Caffarelli, Carlo; Tchana, Bertrand

**Source:** Acta bio-medica : Atenei Parmensis; May 2020; vol. 91 (no. 2); p. 177-183

**Publication Date:** May 2020

**Publication Type(s):** Journal Article Review

**PubMedID:** 32420942

Available at  [Acta bio-medica : Atenei Parmensis](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

**Abstract:** The novel severe acute respiratory syndrome coronavirus 2 (SARS-COV 2) has rapidly spread worldwide with increasing hospitalization and mortality rate. Ongoing studies and accumulated data are de- tailing the features and the effects of the new coronavirus disease 19 (COVID 19) in the adult population, and cardiovascular involvement is emerging as the most significant and life-threatening complication, with an in- creased risk of morbidity and mortality in patients with underlying cardiovascular disease. At present, though the limited data on the effects of COVID 19 in pediatric patients, children seem to count for a little proportion of SARS-COV 2 infection, and present with less severe disease and effects However infants and toddlers are at risk of developing critical course. The disease has a range of clinical presentations in children, for which the potential need for further investigation of myocardial injury and cardiovascular issues should be kept in mind to avoid misdiagnosing severe clinical entities. Overlapping with Kawasaki disease is a concern, particularly the incomplete and atypical form. We aim to summarize the initial considerations and potential cardiovascular implications of COVID-19 for children and patients with congenital heart disease.

**Database:** Medline

**14. Toxic shock-like syndrome and COVID-19: A case report of multisystem inflammatory syndrome in children (MIS-C).**

**Author(s):** Greene, Andrea G; Saleh, Mona; Roseman, Eric; Sinert, Richard

**Source:** The American journal of emergency medicine; Jun 2020

**Publication Date:** Jun 2020

**Publication Type(s):** Case Reports

**PubMedID:** 32532619

Available at  [American Journal of Emergency MedicineAmerican Journal of Emergency Medicine](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [American Journal of Emergency MedicineAmerican Journal of Emergency Medicine](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [American Journal of Emergency MedicineAmerican Journal of Emergency Medicine](https://doi.org/10.1016/j.ajem.2020.05.117)  - from Unpaywall

**Abstract:** Early reports of COVID-19 in pediatric populations emphasized a mild course of disease with severe cases disproportionately affecting infant and comorbid pediatric patients. After the peak of the epidemic in New York City, in late April to early May, cases of severe illness associated with COVID-19 were reported among mostly previously healthy children ages 5-19. Many of these cases feature a toxic shock-like syndrome or Kawasaki-like syndrome in the setting of SARS-CoV-2 positive diagnostic testing and the CDC has termed this presentation Multisystem Inflammatory Syndrome (MIS-C). It is essential to disseminate information among the medical community regarding severe and atypical presentations of COVID-19 as prior knowledge can help communities with increasing caseloads prepare to quickly identify and treat these patients as they present in the emergency department. We describe a case of MIS-C in a child who presented to our Emergency Department (ED) twice and on the second visit was found to have signs of distributive shock, multi-organ injury and systemic inflammation associated with COVID-19. The case describes two ED visits by an 11- year-old SARS-CoV-2-positive female who initially presented with fever, rash and pharyngitis and returned within 48 hours with evidence of cardiac and renal dysfunction and fluid-refractory hypotension requiring vasopressors and PICU admission.

**Database:** Medline

**15. SARS-CoV-2-Induced Kawasaki-Like Hyperinflammatory Syndrome: A Novel COVID Phenotype in Children.**

**Author(s):** Licciardi, Francesco; Pruccoli, Giulia; Denina, Marco; Parodi, Emilia; Taglietto, Manuela; Rosati, Sergio; Montin, Davide

**Source:** Pediatrics; May 2020

**Publication Date:** May 2020

**Publication Type(s):** Journal Article Review

**PubMedID:** 32439816

Available at  [Pediatrics](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Pediatrics](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [Pediatrics](https://pediatrics.aappublications.org/content/pediatrics/early/2020/05/19/peds.2020-1711.full.pdf)  - from Unpaywall

**Database:** Medline

**16. Kawasaki Disease Features and Myocarditis in a Patient with COVID-19.**

**Author(s):** Chiu, Joanne S; Lahoud-Rahme, Manuella; Schaffer, David; Cohen, Ari; Samuels-Kalow, Margaret

**Source:** Pediatric cardiology; Jun 2020

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32542549

Available at  [Pediatric cardiology](http://www.uhl-library.nhs.uk/directpages/gh.html)  - from Glenfield Hospital Library Local Print Collection [location] : Glenfield Library.

Available at  [Pediatric cardiology](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Pediatric cardiology](https://link.springer.com/content/pdf/10.1007/s00246-020-02393-0.pdf)  - from Unpaywall

**Abstract:** A 10-year-old male with prolonged fever, rash, and conjunctivitis presented to the emergency department with concern for Kawasaki disease, found to have myocarditis and PCR positive for SARS-CoV-2.

**Database:** Medline

**17. Multisystem Inflammatory Syndrome in Children in New York State.**

**Author(s):** Dufort, Elizabeth M; Koumans, Emilia H; Chow, Eric J; Rosenthal, Elizabeth M; Muse, Alison; Rowlands, Jemma; Barranco, Meredith A; Maxted, Angela M; Rosenberg, Eli S; Easton, Delia; Udo, Tomoko; Kumar, Jessica; Pulver, Wendy; Smith, Lou; Hutton, Brad; Blog, Debra; Zucker, Howard; New York State and Centers for Disease Control and Prevention Multisystem Inflammatory Syndrome in Children Investigation Team

**Source:** The New England journal of medicine; Jun 2020

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32598830

Available at  [The New England journal of medicine](https://go.openathens.net/redirector/nhs?url=http%3A%2F%2Fovidsp.ovid.com%2Fovidweb.cgi%3FT%3DJS%26PAGE%3Dfulltext%26D%3Dovft%26CSC%3DY%26NEWS%3DN%26SEARCH%3D%2210.1056%2FNEJMoa2021756%22.di)  - from Ovid (Journals @ Ovid)

Available at  [The New England journal of medicine](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [The New England journal of medicine](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

**Abstract:** BACKGROUNDA multisystem inflammatory syndrome in children (MIS-C) is associated with coronavirus disease 2019. The New York State Department of Health (NYSDOH) established active, statewide surveillance to describe hospitalized patients with the syndrome.METHODSHospitals in New York State reported cases of Kawasaki's disease, toxic shock syndrome, myocarditis, and potential MIS-C in hospitalized patients younger than 21 years of age and sent medical records to the NYSDOH. We carried out descriptive analyses that summarized the clinical presentation, complications, and outcomes of patients who met the NYSDOH case definition for MIS-C between March 1 and May 10, 2020.RESULTSAs of May 10, 2020, a total of 191 potential cases were reported to the NYSDOH. Of 95 patients with confirmed MIS-C (laboratory-confirmed acute or recent severe acute respiratory syndrome coronavirus 2 [SARS-CoV-2] infection) and 4 with suspected MIS-C (met clinical and epidemiologic criteria), 53 (54%) were male; 31 of 78 (40%) were black, and 31 of 85 (36%) were Hispanic. A total of 31 patients (31%) were 0 to 5 years of age, 42 (42%) were 6 to 12 years of age, and 26 (26%) were 13 to 20 years of age. All presented with subjective fever or chills; 97% had tachycardia, 80% had gastrointestinal symptoms, 60% had rash, 56% had conjunctival injection, and 27% had mucosal changes. Elevated levels of C-reactive protein, d-dimer, and troponin were found in 100%, 91%, and 71% of the patients, respectively; 62% received vasopressor support, 53% had evidence of myocarditis, 80% were admitted to an intensive care unit, and 2 died. The median length of hospital stay was 6 days.CONCLUSIONSThe emergence of multisystem inflammatory syndrome in children in New York State coincided with widespread SARS-CoV-2 transmission; this hyperinflammatory syndrome with dermatologic, mucocutaneous, and gastrointestinal manifestations was associated with cardiac dysfunction.

**Database:** Medline

**18. SARS-CoV-2-Related Inflammatory Multisystem Syndrome in Children: Different or Shared Etiology and Pathophysiology as Kawasaki Disease?**

**Author(s):** McCrindle, Brian W; Manlhiot, Cedric

**Source:** JAMA; Jun 2020

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32511667

Available at  [JAMA](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [JAMA](https://jamanetwork.com/journals/jama/articlepdf/2767205/jama_mccrindle_2020_ed_200055.pdf)  - from Unpaywall

**Database:** Medline

**19. Multisystem Inflammatory Syndrome in Children (MIS-C) with COVID-19: Insights from simultaneous familial Kawasaki Disease cases.**

**Author(s):** Ebina-Shibuya, R; Namkoong, H; Shibuya, Y; Horita, N

**Source:** International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases; Jun 2020

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32553716

Available at  [International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases](https://doi.org/10.1016/j.ijid.2020.06.014)  - from Unpaywall

**Abstract:** Recently, an increasing number of patients of SARS-CoV-2 with syndrome which overlaps with Kawasaki Disease (KD) has been reported, supporting the idea that infection is one of triggers of KD. We summarized the reports of simultaneous familial KD cases for understanding etiopathogenesis of both KD and Multisystem Inflammatory Syndrome in Children (MIS-C) related to COVID-19. Here we discuss the etiology of these syndromes from the point of view of infection and genetic susceptibility.

**Database:** Medline

**20. Cardiac MRI of Children with Multisystem Inflammatory Syndrome (MIS-C) Associated with COVID-19: Case Series.**

**Author(s):** Blondiaux, Eléonore; Parisot, Pauline; Redheuil, Alban; Tzaroukian, Lucile; Levy, Yaël; Sileo, Chiara; Schnuriger, Aurélie; Lorrot, Mathie; Guedj, Romain; Ducou le Pointe, Hubert

**Source:** Radiology; Jun 2020 ; p. 202288

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32515676

Available at  [Radiology](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Radiology](https://pubs.rsna.org/doi/pdf/10.1148/radiol.2020202288)  - from Unpaywall

**Abstract:** This case series examines cardiac MRI findings in four children and adolescents admitted to intensive care in April 2020 for multisystem inflammatory syndrome and Kawasaki disease-like features related to COVID-19. Acute myocarditis occurred less than 1 week after onset of fever and gastrointestinal symptoms. Physical examination showed rash and cheilitis/conjunctivitis. All patients recovered after intravenous immunoglobulin therapy. SARS-CoV-2 RT-PCR was negative on nasopharyngeal, stool, and respiratory samples and was positive on serology. Cardiac MRI showed diffuse myocardial edema on T2-STIR sequences and native-T1 mapping, with no evidence of late gadolinium enhancement suggestive of replacement fibrosis or focal necrosis. These findings favor post-infectious myocarditis in children and adolescents with COVID-19.

**Database:** Medline

**21. Multisystem Inflammatory Syndrome with Features of Atypical Kawasaki Disease during COVID-19 Pandemic.**

**Author(s):** Rauf, Abdul; Vijayan, Ajay; John, Shaji Thomas; Krishnan, Raghuram; Latheef, Abdul

**Source:** Indian journal of pediatrics; May 2020

**Publication Date:** May 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32462354

Available at  [Indian journal of pediatrics](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Indian journal of pediatrics](https://link.springer.com/content/pdf/10.1007/s12098-020-03357-1.pdf)  - from Unpaywall

**Abstract:** There is a global concern of increasing number of children presenting with inflammatory syndrome with clinical features simulating Kawasaki disease, during ongoing COVID-19 pandemic. The authors report a very similar case of 5-y-old boy from a COVID-19 hotspot area who presented in late April 2020 with acute febrile illness with abdominal pain and loose stools followed by shock. On examination, child had bulbar conjunctivitis and extremity edema. Initial investigations showed high inflammatory parameters, elevated serum creatinine and liver enzymes. Echocardiography showed moderate LV dysfunction and normal coronaries. Cardiac enzymes were also elevated, suggesting myocarditis. He was treated with inotropic support, respiratory support with high flow nasal cannula, IV immunoglobulins, aspirin, steroids and diuretics. RT PCR for SARS-CoV-2 was negative twice. His clinical condition improved rapidly, was afebrile from day 2, inflammatory parameters decreased, left ventricular function improved and was discharged after 6 d of hospital stay.

**Database:** Medline

**22. A Case of Pediatric Multisystem Inflammatory Syndrome Temporally Associated with COVID-19 in South Dakota.**

**Author(s):** Dasgupta, Kingshuk; Finch, Sudhir Eugene

**Source:** South Dakota medicine : the journal of the South Dakota State Medical Association; Jun 2020; vol. 73 (no. 6); p. 246-251

**Publication Date:** Jun 2020

**Publication Type(s):** Case Reports

**PubMedID:** 32580256

Available at  [South Dakota medicine : the journal of the South Dakota State Medical Association](http://search.ebscohost.com/login.aspx?direct=true&scope=site&site=ehost-live&db=mdc&AN=32580256)  - from EBSCO (MEDLINE Complete)

Available at  [South Dakota medicine : the journal of the South Dakota State Medical Association](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

**Abstract:** Coronavirus infectious disease (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was deemed a worldwide pandemic by the World Health Organization in February 2020. The U.S. began seeing epidemic levels of cases in early March 2020. South Dakota case numbers dramatically increased in late March/early April, 2020 due to a large meat processing facility outbreak. Although COVID-19 infections in adults more severely involve the lungs and heart with multiple organ-system dysfunction, pediatric patients have largely been spared. In May 2020, a syndrome resembling severe Kawasaki disease with shock in children was reported from European groups. We report a case that presented to and was managed in our Sioux Falls pediatric intensive care unit in April 2020 that fits the description, course, and successful treatment described by our European colleagues. Our case fulfils the case definition of paediatric multisystem inflammatory syndrome temporally associated with COVID-19 described by the Royal College of Paediatrics and Child Health on April 27, 2020. We will review and discuss the European and US case definitions of this syndrome and similarities, and differences with Kawasaki disease and treatment options.

**Database:** Medline

**23. COVID-19 and Kawasaki Disease: Novel Virus and Novel Case.**

**Author(s):** Jones, Veena G; Mills, Marcos; Suarez, Dominique; Hogan, Catherine A; Yeh, Debra; Segal, J Bradley; Nguyen, Elizabeth L; Barsh, Gabrielle R; Maskatia, Shiraz; Mathew, Roshni

**Source:** Hospital pediatrics; Jun 2020; vol. 10 (no. 6); p. 537-540

**Publication Date:** Jun 2020

**Publication Type(s):** Case Reports Journal Article

**PubMedID:** 32265235

Available at  [Hospital pediatrics](https://hosppeds.aappublications.org/content/hosppeds/10/6/537.full.pdf)  - from Unpaywall

**Abstract:** In the midst of the coronavirus disease 2019 (COVID-19) pandemic, we are seeing widespread disease burden affecting patients of all ages across the globe. However, much remains to be understood as clinicians, epidemiologists, and researchers alike are working to describe and characterize the disease process while caring for patients at the frontlines. We describe the case of a 6-month-old infant admitted and diagnosed with classic Kawasaki disease, who also screened positive for COVID-19 in the setting of fever and minimal respiratory symptoms. The patient was treated per treatment guidelines, with intravenous immunoglobulin and high-dose aspirin, and subsequently defervesced with resolution of her clinical symptoms. The patient's initial echocardiogram was normal, and she was discharged within 48 hours of completion of her intravenous immunoglobulin infusion, with instruction to quarantine at home for 14 days from the date of her positive test results for COVID-19. Further study of the clinical presentation of pediatric COVID-19 and the potential association with Kawasaki disease is warranted, as are the indications for COVID-19 testing in the febrile infant.

**Database:** Medline

**24. Association between a novel human coronavirus and Kawasaki disease.**

**Author(s):** Esper, Frank; Shapiro, Eugene D; Weibel, Carla; Ferguson, David; Landry, Marie L; Kahn, Jeffrey S

**Source:** The Journal of infectious diseases; Feb 2005; vol. 191 (no. 4); p. 499-502

**Publication Date:** Feb 2005

**Publication Type(s):** Research Support, Non-u.s. Gov't Journal Article Research Support, U.s. Gov't, P.h.s.

**PubMedID:** 15655771

Available at  [The Journal of infectious diseases](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [The Journal of infectious diseases](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [The Journal of infectious diseases](https://academic.oup.com/jid/article-pdf/191/4/499/2761847/191-4-499.pdf)  - from Unpaywall

**Abstract:** Kawasaki disease is a systemic vasculitis of childhood; its etiology is unknown. We identified evidence of a novel human coronavirus, designated "New Haven coronavirus" (HCoV-NH), in respiratory secretions from a 6-month-old infant with classic Kawasaki disease. To further investigate the possible association between HCoV-NH infection and Kawasaki disease, we conducted a case-control study. Specimens of respiratory secretions from 8 (72.7%) of 11 children with Kawasaki disease and from 1 (4.5%) of 22 control subjects (children without Kawasaki disease matched by age and the time the specimens were obtained) tested positive for HCoV-NH by reverse-transcriptase polymerase chain reaction (Mantel-Haenszel matched odds ratio, 16.0 [95% confidence interval, 3.4-74.4]; P=.0015). These data suggest that HCoV-NH infection is associated with Kawasaki disease.

**Database:** Medline

**25. Erythema multiforme and Kawasaki disease associated with COVID-19 infection in children.**

**Author(s):** Labé, P; Ly, A; Sin, C; Nasser, M; Chapelon-Fromont, E; Ben Saïd, P; Mahé, E

**Source:** Journal of the European Academy of Dermatology and Venereology : JEADV; May 2020

**Publication Date:** May 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32455505

Available at  [Journal of the European Academy of Dermatology and Venereology : JEADV](https://go.openathens.net/redirector/nhs?url=https%3A%2F%2Fonlinelibrary.wiley.com%2Fdoi%2Ffull%2F10.1111%2Fjdv.16666)  - from Wiley Online Library Medicine and Nursing Collection 2019 - NHS

Available at  [Journal of the European Academy of Dermatology and Venereology : JEADV](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Journal of the European Academy of Dermatology and Venereology : JEADV](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [Journal of the European Academy of Dermatology and Venereology : JEADV](https://onlinelibrary.wiley.com/doi/pdfdirect/10.1111/jdv.16666)  - from Unpaywall

**Abstract:** We read with interest the publications in the JEADV which reported dermatological manifestations associated with COVID-19, such as pityriasis rosea, urticaria, rash, vascular signs, or chilblain-like lesions. Herein, we report two life-threatening cases of children presenting with fever and eruptions with mucous membrane involvement - erythema multiforme and Kawasaki disease - associated with COVID-19.

**Database:** Medline

**26. Autoinflammatory and autoimmune conditions at the crossroad of COVID-19.**

**Author(s):** Rodríguez, Yhojan; Novelli, Lucia; Rojas, Manuel; De Santis, Maria; Acosta-Ampudia, Yeny; Monsalve, Diana M; Ramírez-Santana, Carolina; Costanzo, Antonio; Ridgway, William M; Ansari, Aftab A; Gershwin, M Eric; Selmi, Carlo; Anaya, Juan-Manuel

**Source:** Journal of autoimmunity; Jun 2020 ; p. 102506

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32563547

Available at  [Journal of autoimmunity](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Journal of autoimmunity](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [Journal of autoimmunity](https://doi.org/10.1016/j.jaut.2020.102506)  - from Unpaywall

**Abstract:** Coronavirus disease 2019 (COVID-19) has been categorized as evolving in overlapping phases. First, there is a viral phase that may well be asymptomatic or mild in the majority, perhaps 80% of patients. The pathophysiological mechanisms resulting in minimal disease in this initial phase are not well known. In the remaining 20% of cases, the disease may become severe and/or critical. In most patients of this latter group, there is a phase characterized by the hyperresponsiveness of the immune system. A third phase corresponds to a state of hypercoagulability. Finally, in the fourth stage organ injury and failure occur. Appearance of autoinflammatory/autoimmune phenomena in patients with COVID-19 calls attention for the development of new strategies for the management of life-threatening conditions in critically ill patients. Antiphospholipid syndrome, autoimmune cytopenia, Guillain-Barré syndrome and Kawasaki disease have each been reported in patients with COVID-19. Here we present a scoping review of the relevant immunological findings in COVID-19 as well as the current reports about autoinflammatory/autoimmune conditions associated with the disease. These observations have crucial therapeutic implications since immunomodulatory drugs are at present the most likely best candidates for COVID-19 therapy. Clinicians should be aware of these conditions in patients with COVID-19, and these observations should be considered in the current development of vaccines.

**Database:** Medline

**27. Features of COVID-19 post-infectious cytokine release syndrome in children presenting to the emergency department.**

**Author(s):** Waltuch, Temima; Gill, Prakriti; Zinns, Lauren E; Whitney, Rachel; Tokarski, Julia; Tsung, James W; Sanders, Jennifer E

**Source:** The American journal of emergency medicine; May 2020

**Publication Date:** May 2020

**Publication Type(s):** Case Reports

**PubMedID:** 32471782

Available at  [The American journal of emergency medicine](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [The American journal of emergency medicine](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [The American journal of emergency medicine](https://doi.org/10.1016/j.ajem.2020.05.058)  - from Unpaywall

**Abstract:** The 2019 coronavirus disease (COVID-19) has not appeared to affect children as severely as adults. However, approximately 1 month after the COVID-19 peak in New York City in April 2020, cases of children with prolonged fevers abruptly developing inflammatory shock-like states have been reported in Western Europe and the United States. This case series describes four previously healthy children with COVID-19 infection confirmed by serologic antibody testing, but negative by nasopharyngeal RT-PCR swab, presenting to the Pediatric Emergency Department (PED) with prolonged fever (5 or more days) and abrupt onset of hemodynamic instability with elevated serologic inflammatory markers and cytokine levels (IL-6, IL-8 and TNF-α). Emergency physicians must maintain a high clinical suspicion for this COVID-19 associated post-infectious cytokine release syndrome, with features that overlap with Kawasaki Disease (KD) and Toxic Shock Syndrome (TSS) in children with recent or current COVID-19 infection, as patients can decompensate quickly.

**Database:** Medline

**28. COVID-19 and Kawasaki syndrome: should we really be surprised?**

**Author(s):** Loomba, Rohit S; Villarreal, Enrique; Flores, Saul

**Source:** Cardiology in the young; May 2020 ; p. 1-2

**Publication Date:** May 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32412400

Available at  [Cardiology in the young](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Cardiology in the young](https://www.cambridge.org/core/services/aop-cambridge-core/content/view/2AD153D73A34F46B580097685BD403D2/S1047951120001432a.pdf/div-class-title-covid-19-and-kawasaki-syndrome-should-we-really-be-surprised-div.pdf)  - from Unpaywall

**Abstract:** A hyperinflammatory response to COVID-19 is being described in children. While this presents, and responds to management, similar to that of Kawasaki Disease it is being coined a new entity. But is it really? We explore how this phenomenon may be Kawasaki Disease with a new trigger.

**Database:** Medline

**29. New spectrum of COVID-19 manifestations in children: Kawasaki-like syndrome and hyperinflammatory response.**

**Author(s):** Panupattanapong, Sirada; Brooks, Elizabeth B

**Source:** Cleveland Clinic journal of medicine; Jun 2020

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32493734

Available at  [Cleveland Clinic journal of medicine](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Cleveland Clinic journal of medicine](https://www.ccjm.org/content/ccjom/early/2020/06/01/ccjm.87a.ccc039.full.pdf)  - from Unpaywall

**Abstract:** Since late April 2020, data regarding Kawasaki-like syndrome and hyperinflammatory response in children associated with COVID-19 has rapidly emerged. Much remains unknown about the risk factors, pathogenesis, prognosis, and specific therapy for this emerging manifestation of COVID-19 known as Multisystem Inflammatory Syndrome in Children (MIS-C). MIS-C is rare and early recognition is crucial though no standardized treatment guideline have been established. Worldwide collaboration will be important as more cases are recognized going forward.

**Database:** Medline

**30. Kawasaki disease shock syndrome or toxic shock syndrome in children and the relationship with COVID-19.**

**Author(s):** Pruc, Michal; Smereka, Jacek; Dzieciatkowski, Tomasz; Jaguszewski, Milosz; Filipiak, Krzysztof J; Szarpak, Lukasz

**Source:** Medical hypotheses; Jun 2020; vol. 144 ; p. 109986

**Publication Date:** Jun 2020

**Publication Type(s):** Letter

**PubMedID:** 32562912

Available at  [Medical hypotheses](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Medical hypotheses](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [Medical hypotheses](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7289107)  - from Unpaywall

**Abstract:** Most pediatric patients with COVID-19 are asymptomatic or show only mild symptoms. However, in the last two months, first in Europe and recently in the United States, a small number of children have developed a more severe inflammatory syndrome associated with COVID-19, which often leads to hospitalization and sometimes requires intensive care. A potential relationship was observed, especially between the occurrence of the Kawasaki disease and viral upper respiratory tract infections.

**Database:** Medline

**31. Pediatric inflammatory syndrome temporally related to covid-19.**

**Author(s):** Son, Mary Beth F

**Source:** BMJ (Clinical research ed.); Jun 2020; vol. 369 ; p. m2123

**Publication Date:** Jun 2020

**Publication Type(s):** Editorial Comment

**PubMedID:** 32493704

Available at  [BMJ (Clinical research ed.)](https://go.openathens.net/redirector/nhs?url=https%3A%2F%2Fwww.bmj.com%2Flookup%2Fdoi%2F10.1136%2Fbmj.m2123)  - from BMJ Journals - NHS

Available at  [BMJ (Clinical research ed.)](https://www.bmj.com/content/bmj/369/bmj.m2123.full.pdf)  - from Unpaywall

**Database:** Medline

**32. Defining Association between COVID-19 and the Multisystem Inflammatory Syndrome in Children through the Pandemic.**

**Author(s):** Kim, Yae Jean; Park, Hwanhee; Choi, Youn Young; Kim, Ye Kyung; Yoon, Yoonsun; Kim, Kyung Ran; Choi, Eun Hwa

**Source:** Journal of Korean medical science; Jun 2020; vol. 35 (no. 22); p. e204

**Publication Date:** Jun 2020

**Publication Type(s):** Editorial

**PubMedID:** 32508068

Available at  [Journal of Korean medical science](http://europepmc.org/search?query=(DOI:10.3346/jkms.2020.35.e204))  - from Europe PubMed Central - Open Access

Available at  [Journal of Korean medical science](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Journal of Korean medical science](http://jkms.org/Synapse/Data/PDFData/0063JKMS/jkms-35-e204.pdf)  - from Unpaywall

**Database:** Medline

**33. Kawasaki disease and human coronavirus.**

**Author(s):** Belay, Ermias D; Erdman, Dean D; Anderson, Larry J; Peret, Teresa C T; Schrag, Stephanie J; Fields, Barry S; Burns, Jane C; Schonberger, Lawrence B

**Source:** The Journal of infectious diseases; Jul 2005; vol. 192 (no. 2); p. 352

**Publication Date:** Jul 2005

**Publication Type(s):** Letter Comment

**PubMedID:** 15962234

Available at  [The Journal of infectious diseases](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [The Journal of infectious diseases](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [The Journal of infectious diseases](https://academic.oup.com/jid/article-pdf/192/2/352/2552742/192-2-352.pdf)  - from Unpaywall

**Database:** Medline

**34. The novel coronavirus (COVID-19) and the risk of Kawasaki disease in children.**

**Author(s):** Alizargar, Javad

**Source:** Journal of the Formosan Medical Association = Taiwan yi zhi; May 2020

**Publication Date:** May 2020

**Publication Type(s):** Letter

**PubMedID:** 32456973

Available at  [Journal of the Formosan Medical Association = Taiwan yi zhi](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Journal of the Formosan Medical Association = Taiwan yi zhi](https://doi.org/10.1016/j.jfma.2020.05.030)  - from Unpaywall

**Database:** Medline

**35. Missed or delayed diagnosis of Kawasaki disease during the 2019 novel coronavirus disease (COVID-19) pandemic.**

**Author(s):** Harahsheh, Ashraf S; Dahdah, Nagib; Newburger, Jane W; Portman, Michael A; Piram, Maryam; Tulloh, Robert; McCrindle, Brian W; de Ferranti, Sarah D; Cimaz, Rolando; Truong, Dongngan T; Burns, Jane C

**Source:** The Journal of pediatrics; Jul 2020; vol. 222 ; p. 261-262

**Publication Date:** Jul 2020

**Publication Type(s):** Letter

**PubMedID:** 32370951

Available at  [The Journal of pediatrics](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [The Journal of pediatrics](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [The Journal of pediatrics](https://doi.org/10.1016/j.jpeds.2020.04.052)  - from Unpaywall

**Database:** Medline

**36. Kawasaki-like disease: emerging complication during the COVID-19 pandemic.**

**Author(s):** Viner, Russell M; Whittaker, Elizabeth

**Source:** Lancet (London, England); Jun 2020; vol. 395 (no. 10239); p. 1741-1743

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article Comment

**PubMedID:** 32410759

Available at  [Lancet (London, England)](http://www.uhl-library.nhs.uk/directpages/lgh.html)  - from Leicester General Hospital Library Local Print Collection [location] : Leicester General Library. [title\_notes] : Issues before 2000 held in Archive.

Available at  [Lancet (London, England)](http://www.uhl-library.nhs.uk/directpages/lri.html)  - from LRI Library Local Full Text Collection [location] : LRI Library.

Available at  [Lancet (London, England)](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Lancet (London, England)](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [Lancet (London, England)](https://doi.org/10.1016/s0140-6736(20)31129-6)  - from Unpaywall

**Database:** Medline

**37. Doctors race to understand inflammatory condition in kids.**

**Author(s):** Couzin-Frankel, Jennifer

**Source:** Science (New York, N.Y.); May 2020; vol. 368 (no. 6494); p. 923-924

**Publication Date:** May 2020

**Publication Type(s):** News

**PubMedID:** 32467368

Available at  [Science (New York, N.Y.)](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Science (New York, N.Y.)](https://science.sciencemag.org/content/sci/368/6494/923.full.pdf)  - from Unpaywall

**Database:** Medline

**38. COVID-19 and Kawasaki disease in children.**

**Author(s):** Xu, Suowen; Chen, Mingwu; Weng, Jianping

**Source:** Pharmacological research; May 2020; vol. 159 ; p. 104951

**Publication Date:** May 2020

**Publication Type(s):** Letter

**PubMedID:** 32464327

Available at  [Pharmacological research](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Pharmacological research](https://doi.org/10.1016/j.phrs.2020.104951)  - from Unpaywall

**Database:** Medline

**39. Kawasaki disease in a COVID-19-struck region.**

**Author(s):** Stower, Hannah

**Source:** Nature medicine; Jun 2020; vol. 26 (no. 6); p. 822

**Publication Date:** Jun 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32528149

Available at  [Nature medicine](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Nature medicine](https://www.nature.com/articles/s41591-020-0959-4.pdf)  - from Unpaywall

**Database:** Medline

**40. Kawasaki disease linked to COVID-19 in children.**

**Author(s):** Moreira, Alvaro

**Source:** Nature reviews. Immunology; Jul 2020; vol. 20 (no. 7); p. 407

**Publication Date:** Jul 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32461672

Available at  [Nature reviews. Immunology](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Nature reviews. Immunology](https://www.nature.com/articles/s41577-020-0350-1.pdf)  - from Unpaywall

**Database:** Medline

**41. Covid-19 and Kawasaki Disease: An Etiology or Coincidental Infection?**

**Author(s):** Raba, Ali Ahmed; Abobaker, Anis

**Source:** The Pediatric infectious disease journal; May 2020

**Publication Date:** May 2020

**Publication Type(s):** Journal Article

**PubMedID:** 32467454

Available at  [The Pediatric infectious disease journal](https://go.openathens.net/redirector/nhs?url=http%3A%2F%2Fovidsp.ovid.com%2Fovidweb.cgi%3FT%3DJS%26PAGE%3Dfulltext%26D%3Dovft%26CSC%3DY%26NEWS%3DN%26SEARCH%3D%2210.1097%2FINF.0000000000002779%22.di)  - from Ovid (LWW High Impact Collection) - 2020

Available at  [The Pediatric infectious disease journal](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [The Pediatric infectious disease journal](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [The Pediatric infectious disease journal](https://journals.lww.com/pidj/Citation/9000/Covid_19_and_Kawasaki_Disease__An_Etiology_or.96138.aspx)  - from Unpaywall

**Database:** Medline

**42. Covid-19 and Kawasaki Disease: A Glimpse at the Past for a Predictable Future.**

**Author(s):** Calabri, Giovanni Battista; Formigari, Roberto

**Source:** Pediatric cardiology; Jun 2020; vol. 41 (no. 5); p. 1075

**Publication Date:** Jun 2020

**Publication Type(s):** Letter

**PubMedID:** 32462467

Available at  [Pediatric cardiology](http://www.uhl-library.nhs.uk/directpages/gh.html)  - from Glenfield Hospital Library Local Print Collection [location] : Glenfield Library.

Available at  [Pediatric cardiology](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Pediatric cardiology](https://link.springer.com/content/pdf/10.1007/s00246-020-02385-0.pdf)  - from Unpaywall

**Database:** Medline

**43. All Hands on Deck: A Synchronized Whole-of-World Approach for COVID-19 Mitigation**

**Author(s):** Ebrahim S.H.; Zhuo J.; Gozzer E.; Ahmed Q.A.; Imtiaz R.; Ahmed Y.; Doumbia S.; Rahman N.M.M.; Elachola H.; Wilder-Smith A.; Memish Z.A.

**Source:** International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases; Jun 2020

**Publication Date:** Jun 2020

**Publication Type(s):** Article

**PubMedID:** 32565364

Available at  [International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases](https://doi.org/10.1016/j.ijid.2020.06.049)  - from Unpaywall

**Abstract:** The COVID-19 pandemic can no longer be mitigated by nationwide approach of individual nations alone. Given its scale and accelerating expansion COVID-19 behooves a coordinated and simultaneous Whole- of-World approach that galvanizes clear global leadership and solidarity from all governments of the world. Considering an 'all hands-on deck' concept, we present a comprehensive list of tools and entities responsible for and enabling them, as well a conceptual framework to achieve the maximum impact. The list is drawn from pandemic mitigation tools developed in response to past outbreaks including influenza, coronaviruses, and Ebola and includes tools to minimize transmission in various settings including person-to-person, crowd, funerals, travel, workplace, and events and gatherings including business, social and religious venues. Included are the roles of individuals, communities, government and other sectors such as school system, health, institutions, and business. While individuals and communities have significant responsibilities to prevent person-to-person transmission, other entities can play a significant role to enable individuals and communities to make use of the tools. Historic and current data indicate the role of political will, whole-of-government approach, and the role of early introduction of mitigation measures. There is also an urgent need to further elucidate the immunologic mechanisms underlying the epidemiological characteristics such as the low disease burden among women, and role of COVID-19 in inducing Kawasaki like syndromes in children. Understanding the role of and development of anti-inflammatory strategies based on our understanding pro-inflammatory cytokines (IL1, IL-6) is also critical. Similarly, the role of oxygen therapy as an anti-inflammatory strategy is evident and access to oxygen therapy should be prioritized to avoid the aggravation of COVID-19 infection. We highlight the need for global solidarity to share both mitigation commodities and infrastructure between countries. Given the global reach ofCOVID-19 and potential for repeat waves of outbreaks, we call on all countries and communities to act synergistically and emphasize the need for synchronized pan-global mitigation efforts to minimize everyone's risk, maximize collaboration and to commit to shared progress.Copyright © 2020. Published by Elsevier Ltd.

**Database:** EMBASE

**44. COVID-19 and Kawasaki disease: an analysis using Google Trends**

**Author(s):** Dey M.; Zhao S.S.

**Source:** Clinical RheumatologyClinical Rheumatology; 2020

**Publication Date:** 2020

**Publication Type(s):** Letter

**PubMedID:** 32557254

Available at  [Clinical rheumatology](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Clinical rheumatology](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [Clinical rheumatology](https://link.springer.com/content/pdf/10.1007/s10067-020-05231-z.pdf)  - from Unpaywall

**Database:** EMBASE

**45. Introductory histopathologic findings may shed light on COVID19 pediatric hyperinflammatory shock syndrome**

**Author(s):** Schnapp A.; Abulhija H.; Levin Y.; Maly A.; Armoni-Weiss G.; Faitatziadou S.M.; Molho-Pessach V.

**Source:** Journal of the European Academy of Dermatology and Venereology : JEADV; Jun 2020

**Publication Date:** Jun 2020

**Publication Type(s):** Letter

**PubMedID:** 32535977

Available at  [Journal of the European Academy of Dermatology and Venereology : JEADV](https://go.openathens.net/redirector/nhs?url=https%3A%2F%2Fonlinelibrary.wiley.com%2Fdoi%2Ffull%2F10.1111%2Fjdv.16749)  - from Wiley Online Library Medicine and Nursing Collection 2019 - NHS

Available at  [Journal of the European Academy of Dermatology and Venereology : JEADV](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Journal of the European Academy of Dermatology and Venereology : JEADV](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [Journal of the European Academy of Dermatology and Venereology : JEADV](https://onlinelibrary.wiley.com/doi/pdfdirect/10.1111/jdv.16749)  - from Unpaywall

**Abstract:** Numerous pediatric cases of hyperinflammatory shock syndrome (demonstrating features reminiscent of Kawasaki vasculitis) were recently associated with infection by COVID-19. Clinical presentation includes unrelenting fever, variable rash, conjunctivitis and abdominal pain, progressing to hemodynamic shock with severe myocardial involvement. Recent report from Italy reported a 30 time increase in the rate of Kawasaki-like presentation during the COVID-19 pandemic among children, In many cases the nasopharyngeal swabs taken from these children were negative for COVID-19, and the association with COVID-19 infection is unclear.Copyright This article is protected by copyright. All rights reserved.

**Database:** EMBASE

**46. Viral infections associated with Kawasaki disease**

**Author(s):** Chang L.-Y.; Lu C.-Y.; Shao P.-L.; Lee P.-I.; Lin M.-T.; Fan T.-Y.; Cheng A.-L.; Lee W.-L.; Chiang B.-L.; Wu M.-H.; Huang L.-M.; Hu J.-J.; Yeh S.-J.; Chang C.-C.

**Source:** Journal of the Formosan Medical AssociationJournal of the Formosan Medical Association; 2014; vol. 113 (no. 3); p. 148-154

**Publication Date:** 2014

**Publication Type(s):** Article

**PubMedID:** 24495555

Available at  [Journal of the Formosan Medical Association = Taiwan yi zhi](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Journal of the Formosan Medical Association = Taiwan yi zhi](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7125523)  - from Unpaywall

**Abstract:** Background/Purpose: Kawasaki disease (KD) is a disease of unknown cause. To investigate the infectious etiology of Kawasaki disease, we initiated a prospective case-control study to investigate possible links between common viral infections and Kawasaki disease. Method(s): We enrolled 226 children with KD and 226 age- and sex-matched healthy children from February 2004 to March 2010. Throat and nasopharyngeal swabs were taken for both viral isolation and polymerase chain reaction (PCR) for various viruses. Result(s): The mean age of the 226 KD cases was 2.07 years, and the male to female ratio was 1.43 (133 boys to 93 girls). Their mean fever duration was 7.5 days with a mean peak temperature of 39.7degreeC. In addition to the typical symptoms of fever, neck lymphadenopathy, lip fissure and/or strawberry tongue, skin rash, nonpurulent bulbar conjunctivitis, palm/sole erythema, and induration followed by periungual desquamation, these KD cases also exhibited cough (69%), rhinorrhea (58%), and diarrhea (45%). Cases of KD had a significantly higher positive rate of viral isolation in comparison with the control group (7.5% vs. 2.2%, p=0.02). Compared with the control group, cases of KD were more likely to have overall positive rates of viral PCR (50.4% vs. 16.4%, p<0.001) and for various viruses including enterovirus (16.8% vs. 4.4%, p<0.001), adenovirus (8.0% vs. 1.8%, p=0.007), human rhinovirus (26.5% vs. 9.7%, p<0.001), and coronavirus (7.1% vs. 0.9%, p=0.003). Conclusion(s): We found that some common respiratory viruses, such as adenoviruses, enteroviruses, rhinoviruses, and coronaviruses, were associated with KD cases. © 2014.

**Database:** EMBASE

**47. Hyperinflammatory shock in children during COVID-19 pandemic**

**Author(s):** Riphagen S.; Gomez X.; Gonzalez-Martinez C.; Wilkinson N.; Theocharis P.

**Source:** The LancetThe Lancet; May 2020; vol. 395 (no. 10237); p. 1607-1608

**Publication Date:** May 2020

**Publication Type(s):** Letter

**PubMedID:** 32386565

Available at  [Lancet (London, England)](http://www.uhl-library.nhs.uk/directpages/lgh.html)  - from Leicester General Hospital Library Local Print Collection [location] : Leicester General Library. [title\_notes] : Issues before 2000 held in Archive.

Available at  [Lancet (London, England)](http://www.uhl-library.nhs.uk/directpages/lri.html)  - from LRI Library Local Full Text Collection [location] : LRI Library.

Available at  [Lancet (London, England)](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Lancet (London, England)](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at  [Lancet (London, England)](https://doi.org/10.1016/s0140-6736(20)31094-1)  - from Unpaywall

**Database:** EMBASE

**48. Cardiac function in kawasaki disease patients with respiratory symptoms**

**Author(s):** Lee S.B.; Choi H.S.; Son S.; Hong Y.M.

**Source:** Korean Circulation JournalKorean Circulation Journal; Jul 2015; vol. 45 (no. 4); p. 317-324

**Publication Date:** Jul 2015

**Publication Type(s):** Article

Available at  [Korean Circulation Journal](http://europepmc.org/search?query=(DOI:10.4070/kcj.2015.45.4.317))  - from Europe PubMed Central - Open Access

Available at  [Korean Circulation Journal](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Korean Circulation Journal](http://synapse.koreamed.org/Synapse/Data/PDFData/0054KCJ/kcj-45-317.pdf)  - from Unpaywall

**Abstract:** Background and Objectives: Respiratory symptoms are often observed in children with Kawasaki disease (KD) during the acute phase. The association of respiratory viruses in children with KD was investigated using multiplex reverse transcriptase-polymerase chain reaction (RT-PCR) and tissue Doppler echocardiography. Subjects and Methods: 138 KD patients were included from January 2010 to June 2013. We compared 3 groups (group 1: n=94, KD without respiratory symptoms; group 2: n=44, KD with respiratory symptoms; and group 3: n=50, febrile patients with respiratory symptoms). Laboratory data were obtained from each patient including N-terminal pro-brain natriuretic peptide (NT-proBNP). Echocardiographic measurements were compared between group 1 and group 2. RT-PCR was performed using nasopharyngeal secretion to screen for the presence of 14 viruses in groups 2 and 3. Result(s): The incidence of KD with respiratory symptoms was 31.8%. The duration of fever was significantly longer, and coronary artery diameter was larger in group 2 than in group 1. Tei index was significantly higher and coronary artery diameter larger in group 2 than group 1. Coronary artery diameter, C-reactive protein levels, platelet count, alanine aminotransferase levels, and NT-pro BNP levels were significantly higher and albumin levels lower in group 2 compared with group 3. Conclusion(s): NT-pro BNP was a valuable diagnostic tool in differentiating KD from other febrile viral respiratory infections. Some viruses were more frequently observed in KD patients than in febrile controls. Tei index using tissue Doppler imaging was increased in KD patients with respiratory symptoms.Copyright © 2015 The Korean Society of Cardiology.

**Database:** EMBASE

**49. Real time polymerase chain reaction assays for detection of respiratory viruses in Kawasaki Disease patients**

**Author(s):** Hong Y.M.; Lee S.B.; Choi H.S.; Kwon J.H.; Kim H.S.; Son S.

**Source:** Circulation; Apr 2015; vol. 131

**Publication Date:** Apr 2015

**Publication Type(s):** Conference Abstract

Available at  [Circulation](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Available at  [Circulation](http://www.uhl-library.nhs.uk/directpages/uhlarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

**Abstract:** Purpose: Respiratory symptoms are frequently observed in children with Kawasaki disease (KD) during the acute phase. The association rate of KD with antecedent respiratory illness has been reported to range from 56 to 83%. Clinical and epidemiologic features of KD support an infectious cause, but the etiology remains unknown. We investigated the association of respiratory viruses in children with KD using multiplex reverse transcriptase-polymerase chain reaction (RT-PCR). Method(s): 138 KD patients were enrolled from January 2010 to June 2013. Two study groups (Group 1; n=94, KD without respiratory symptoms, Group 2; n=44, KD with respiratory symptoms) were compared with a control group (Group 3; n=5, febrile patients with respiratory symptoms). Laboratory data were obtained from each patient including complete blood count (CBC), erythrocyte sedimentation rate (ESR), platelet count, alanine aminotransferase (ALT), aspartate aminotransferase (AST), serum total protein, albumin, C-reactive protein (CRP), NT-pro brain natriuretic peptide (BNP). Echocardiographic measurements were compared between the three groups. RT-PCR was performed using nasopharyngeal secretion to screen for the presence of 14 viruses (corona virus, parainfluenza virus 1, 2 and 3, influenza A and B, respiratory syncytial virus A and B, rhino virus A, B and C, metapneumo virus, adenovirus, and bocavirus) in groups 2 and 3. Result(s): The rate of KD with respiratory symptoms was 17.5%. The duration of fever was significantly longer and coronary artery diameter was significantly larger in group 2 than in group 1. Coronary artery diameter, CRP, platelet count, ALT, and NT-pro BNP were significantly higher and albumin lower in group 2 compared with group 3. Detection rate of adenovirus was 55.0% in group 2 and 28.6% in group 3. Conclusion(s): A positive RT-PCR for respiratory viruses may be helpful to elucidate the specific virus in KD patients with respiratory symptoms. NT-proBNP is a very important diagnostic tool in differentiating KD from other febrile viral respiratory infaction.

**Database:** EMBASE

**50. The effect of regional viral outbreaks on the incidence of Kawasaki disease: A single center study**

**Author(s):** Lee J.E.; Oh J.H.; Lee J.Y.; Lee S.J.; Han J.W.; Lee K.Y.; Koh D.K.; Cho H.-G.

**Source:** Experimental and Clinical Cardiology; 2014; vol. 20 (no. 7); p. 1835-1839

**Publication Date:** 2014

**Publication Type(s):** Article

Available at  [Experimental and Clinical Cardiology](http://www.uhl-library.nhs.uk/directpages/uhlblarticles.html)  - from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

**Abstract:** The incidence of Kawasaki disease (KD) is reported to be gradually increasing in Northeast Asia. As the diagnosis of KD still depends on its clinical features, the recent increase in its incidence is thought to be the result of a viral infection with similar features. We investigated trends in regional epidemics of respiratory viruses and the monthly incidence of KD. The medical records of 229 patients in a single Korean medical center who had been diagnosed with KD over 3 years were retrospectively reviewed. We also obtained regional community epidemiologic data on seven kinds of respiratory viruses from a single center and compared it with the national surveillance monitoring epidemiologic survey data. During the early summer each year, a positive rate of adenovirus was inversely related to the monthly incidence of KD. The positive rate of human Bocavirus had a weak linear correlation with the monthly incidence of KD in children younger than six years. These results suggest that the recent increase in KD incidence in Korea does not seem to be related to regional epidemics of any of the respiratory viruses studied. © 2013 et al.; licensee Cardiology Academic Press.

**Database:** EMBASE

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| **#** | **Database** | **Search term** | **Results** |
| 1 | Medline | (PIMS -TS).ti,ab | 5 |
| 2 | Medline | (hyperinflammat\*).ti,ab | 1096 |
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| 5 | Medline | "MUCOCUTANEOUS LYMPH NODE SYNDROME"/ | 5975 |
| 6 | Medline | (kawasaki).ti,ab | 7550 |
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| 9 | Medline | (corona ADJ vir\*).ti,ab | 503 |
| 10 | Medline | (covid-19).ti,ab | 16425 |
| 11 | Medline | (sars-cov\*).ti,ab | 6901 |
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| 16 | Medline | ("novel coronavirus" OR ncov OR "novel betacov" OR "novel betacoronavirus").ti,ab | 2693 |
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| 18 | Medline | (7 AND 17) | 77 |
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| 20 | EMBASE | ("P?ediatric Inflammatory Multisystem Syndrome").ti,ab | 4 |
| 21 | EMBASE | "MUCOCUTANEOUS LYMPH NODE SYNDROME"/ | 11438 |
| 22 | EMBASE | (kawasaki).ti,ab | 10095 |
| 23 | EMBASE | (19 OR 20 OR 21 OR 22) | 12699 |
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| 26 | EMBASE | (covid-19).ti,ab | 15131 |
| 27 | EMBASE | (sars-cov\*).ti,ab | 8055 |
| 28 | EMBASE | (wuhan ADJ2 corona\*).ti,ab | 32 |
| 29 | EMBASE | (2019-nCoV).ti,ab | 574 |
| 30 | EMBASE | (cv19 OR cv-19).ti,ab | 103 |
| 31 | EMBASE | ("novel coronavirus" OR ncov OR "novel betacov" OR "novel betacoronavirus").ti,ab | 2841 |
| 32 | EMBASE | exp CORONAVIRIDAE/ OR exp "CORONAVIRIDAE INFECTION"/ | 29099 |
| 33 | EMBASE | (24 OR 25 OR 26 OR 27 OR 28 OR 29 OR 30 OR 31 OR 32) | 48728 |
| 34 | EMBASE | (23 AND 33) | 87 |