

Kawasaki disease in children older than 5 years of age among 20 Latin American countries: a prospective multinational multicenter study of the REKAMLATINA network

Rolando Ulloa-Gutiérrez,¹ Luis Martín Garrido-García,^{4,5} Dora Estripeaut,⁶ Francisco J Rodríguez,¹⁵ Patricia Saltigeral-Simental,^{4,8} Olguita del Águila,¹⁴ Greta Miño,⁹ Marco Tulio Luque,¹⁸ Adrián Collia,³ Enrique Faugier-Fuentes,¹¹ Heloisa Helena de Sousa Marques,¹⁹ Martha I Álvarez-Olmos,¹⁶ Kathia Luciani,²¹ María Catalina Pérez,²⁸ Fernanda Cofré,²⁵ German Camacho-Moreno,¹⁰ Virgen Gómez,^{12,13} Marco A Yamazaki-Nakashimada,⁴ Diana López-Gallegos,⁸ Angélica Calvache-Burbano,^{9,22} María L Avila-Aguero,¹ Giannina Izquierdo,²⁷ Kattia Camacho-Badilla,¹ Alejandra Soriano-Fallas,¹ Kathia Valverde,¹ Raymundo Rodríguez,⁴ Enrique Chacón-Cruz,³⁵ Antonio Fernández,⁹ Lucila Martínez-Medina,¹⁷ Luisa B Gámez-González,²⁰ Lourdes Dueñas,⁷ Paola Pérez-Camacho,²⁶ Carlos Grazioso,²³ Lorena Franco,²⁴ Nora Bueno,²⁴ Sandra Beltrán,³¹ Jorge A Vázquez-Narváez,³⁷ Mildred Zambrano,²² Pilar Picart,²⁷ Antonio Arbo,²⁹ Mario Melgar,³⁰ Carlos Daza,³² Eduardo López-Medina,³³ Arturo Borzutzky,² Enrique López,³⁴ Norma López,³⁴ Rafael Hernández-Magaña,³⁶ Jesús Alvelo,³⁸ Stella Gutiérrez,³⁹ Sergio Bernal-Granillo,⁴⁰ María del C Luiz-Alvarez,⁴¹ Saulo Duarte Passos,⁴² Tamara Viviani,⁴³ Belén Amorín,⁴⁴ Mussaret Zaidi,⁴⁵ Elizabeth Castaño,⁶ Ximena Norero,⁶ Raúl Esquivel,⁶ Jacqueline Levy,⁶ Scarlet Sinisterra,⁶ Guillermo Barahona,⁷ Mauricio Velado,⁷ Mario Gamero,⁷ Horacio Marqués-González,⁸ Judith Soffe,⁹ Yasmin Sánchez,⁹ Denisse Olaya,⁹ Roy Sanguino-Lobo,¹⁰ Adriana Díaz,¹⁰ Kelly Marquez-Herrera,¹⁰ Sarbelio Moreno-Espinosa,¹¹ Ángel Flores,¹¹ Ana Victoria Villareal,¹¹ Manuel Huertas,¹⁶ Pilar Guarnizo,¹⁶ Diana Medina,¹⁶ María Fernanda García,¹⁶ Paula Araque,¹⁶ Neusa Keico Sakita,¹⁹ María F Pereira-Badue,¹⁹ Gabriela Leal,¹⁹ Daniela Cleves,²⁶ Jaime Patiño,²⁶ Alejandro Ellis,³ Gonzalo Calvimontes,²³ Pablo J Grazioso,²³ Joyce Andrade,²² Juan Chang,²² Dolores Lovera,²⁹ Sara Amarilla,²⁹ Fernando Galeano,²⁹ Norma Astigarraga,²⁹ Paola G Martínez-Victoria,³⁵ Cecilia Piñera,²⁷ Elizabeth Assandri,^{28,39} Mónica Pujadas,²⁸ Alejandra Vomero,²⁸ Federia Badía,²⁸ Karina Machado,²⁸ Carmen Requena,³² Isabel C Hurtado-Palacios,³³ Julieta González-Palacios,¹⁷ Pamela Morales,² Alfonso Hernández,² Norma J Cortés-Cruz,³⁷ Ignacio Camacho-Meza,³⁶ Eunice Sandoval Ramírez,³⁶ Rubén Alba-Medina,³⁶ Estefanía Fynn,³⁹ María Caggiani,³⁹ Tibisay Triana,⁴⁶ Jaime Deseda-Tous,⁴⁷ Margarita Martínez,⁴⁷ Gabriel Vega-Cornejo,⁴⁸ Rocío Alejandra Peña-Juárez,⁴⁸ Gabriela Naranjo-Zuñiga,¹ Víctor H Velazco,⁴⁹ Patricio Andrade,⁴⁹ Pablo García-Munitis,⁵⁰ Alejandro Díaz,⁵¹ María M Somarriba,⁵² Mariangeles Pérez,⁵² Mireya Araica,⁵² Alejandro Santillán,⁵³ Nora Caballero,⁵³ Jesús de Lara Huerta,⁵⁴ Jorge Alfaro-Murillo,⁵⁵ Andrea P Salgado,² Adriana H Tremoulet⁵⁶

BACKGROUND AND OBJECTIVES

- ◆ Kawasaki disease (KD) is the leading cause of acquired pediatric cardiac disease in developed countries and many developing countries. Its diagnosis at extreme age groups is difficult, particularly in infants <6 months of age. Worldwide, approximately 20% of KD cases occur in children >5 years; however, publications focusing on this age group are scarce.
- ◆ REKAMLATINA (Red de Enfermedad de Kawasaki en América Latina), is the largest non-funded multinational multicenter KD network studying the epidemiology, clinical aspects and treatment of KD. Established in 2013, the network is composed so far of 128 investigators/co-investigators: pediatricians, pediatric infectious disease, rheumatology, cardiology, allergology, and immunology sub-specialists and/or fellows/residents.
- ◆ Our objective is to describe the epidemiology, clinical aspects and treatment of the first prospective Latin American (LA) multinational study of KD in children >5 years of age.

METHODS

- ◆ Ongoing prospective study of patients (pts) with a discharge diagnosis of KD attended at 54 main pediatric/general LA referral hospitals.
- ◆ Study period: June-1-2014 to March-31-2016.

RESULTS

- ◆ Among 481 eligible KD pts, 82 (17.0%) were ≥ 5 years as follows:
 - ◆ 5 to <9 years, 67 (81.7%) pts; 9 to <13 yrs, 15 (18.3%) pts.
 - ◆ Median age at admission was 77 (60-155) months.

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 - ◆ Median age at admission was 77 (60-155) months.
- ◆ 50 (61.0%) were male. 79 (96.3%) pts were hospitalized, with a mean length of stay of 5 (2-21) days.
- ◆ Mean days of fever at admission were 7 (1-22) days; 19.8% had other non-KD admission diagnosis.
- ◆ 93.7% pts had ≥ 1 medical visits prior to final diagnosis: 2 visits (38.8%), 1 visit (21.3%), 3 visits (20%), 4 visits (8.8%), 5 visits (3.8%).
- ◆ Prior to KD diagnosis, 55 (67.1%) pts received ≥ 1 antibiotics for other presumed diagnoses. Only 3/69 (4.3%) pts had BCG scar changes (erythema, edema, crust, and/or ulcer) by clinical history and/or physical examination.
- ◆ Baseline echocardiogram was performed in all pts, of which an abnormality was documented in 28 (34.1%) pts. Coronary artery dilatations and/or aneurysms were detected in 8/82 (9.8%) pts. No myocardial infarctions occurred.
- ◆ IVIG was given in 75 (91.5%) pts: 1 dose, 62 (82.7%); 2 doses, 12 (16%); and 3 doses, 1 (1.3%) pts. Among those pts treated with IVIG on admission, 9 (12%) pts had ≥ 10 days of fever.
- ◆ Aspirin, steroids and infliximab were given in 80 (97.6%), 28 (34.2%), and 3 (3.7%) pts, respectively.
- ◆ Incomplete/atypical KD was diagnosed in 15 (18.3%) pts. 2 (2.4%) had recurrent KD. No deaths occurred.

CONCLUSIONS

- ◆ In LA ch >5 years of age, KD is associated with a late clinical diagnosis, significant rates of antibiotic misuse for other suspected diagnosis, and a considerable proportion of early cardiac abnormalities.
- ◆ For this age group, BCG scar changes are very uncommon and therefore are not very useful for clinical suspicion of the disease.
- ◆ In terms of number of countries, this is the largest multinational study analyzing KD in children > 5 years of age.

Participant Centers

- Hospital Nacional de Niños "Dr. Carlos Sáenz Herrera" (San José, Costa Rica)
- Pontificia Universidad Católica de Chile (Santiago, Chile)
- Sanatorio Mater Dei (Buenos Aires, Argentina)
- Instituto Nacional de Pediatría (Ciudad de México, México)
- Hospital Angeles de las Lomas (Ciudad de México, México)
- Hospital del Niño (Ciudad Panamá, Panamá)
- Hospital Nacional de Niños Benjamín Bloom (San Salvador, El Salvador)
- Star Médica Hospital Infantil Privado (Ciudad de México, México)
- Hospital del Niño "Francisco de Ycaza Bustamante" (Guayaquil, Ecuador)
- Hospital de la Misericordia (Bogotá, Colombia)
- Hospital Infantil de México Federico Gómez (Ciudad de México, México)
- Centro Médico Universidad Central del Este (Santo Domingo, Dominican Republic)
- Hospital Infantil "Dr. Robert Reid Cabral" (San Domingo, Dominican Republic)
- Hospital Edgardo Rabagliati (Lima, Peru)
- Hospital de Especialidades Instituto Hondureño de Seguridad Social (Tegucigalpa, Honduras)
- Fundación Cardioinfantil IC (Bogotá, Colombia)
- Centenario Hospital Miguel Huidalgo (Aguas Calientes, México)
- Hospital Escuela Universitario (Tegucigalpa, Honduras)
- Hospital Das Clinicas da Faculdade Medicina de USP (Sao Paulo, Brasil)
- Hospital Infantil de Chihuahua (Chihuahua, México)
- Hospital de Especialidades Pediátricas de la Caja del Seguro Social (Ciudad Panamá, Panamá)
- Hospital de Niños "Dr. Roberto Gilbert Elizalde" (Guayaquil, Ecuador)
- Sanatorio Nuestra Señora del Pilar/Hospital General San Juan de Dios (Ciudad Guatemala, Guatemala)
- Hospital Infantil Municipal de Córdoba (Córdoba, Argentina)
- Hospital Roberto del Río (Santiago, Chile)
- Fundación Valle del Lili (Cali, Colombia)
- Hospital de Niños "Dr. Exequiel González Cortés" (Santiago, Chile)
- Hospital Pediátrico Centro Hospitalario Pereira Rossell (Montevideo, Uruguay)
- Instituto de Medicina Tropical (Asunción, Paraguay)
- Hospital Roosevelt (Ciudad Guatemala, Guatemala)
- Clinica Colasantas (Bogotá, Colombia)
- Hospital Materno Infantil José Domingo de Obaldía (Chiriquí, Panamá)
- Hospital Universitario del Valle y Centro Médico Imbanaco (Cali, Colombia)
- Hospital para el Niño de Toluca (Toluca, México)
- Hospital General de Tijuana (Tijuana, México)
- Hospital de Especialidades Pediátrico de León (León, México)
- Hospital Infantil de Morelia "Eva Sámano de López Mateos" (Morelia, México)
- Puerto Rico Children's Hospital (San Juan, Puerto Rico)
- Hospital CASMU (Montevideo, Uruguay)
- Hospital General de Zona 1/MMS/Hospital Angeles CMP (San Luis Potosí, México)
- Hospital Pediátrico Universitario "William Soler" (La Habana, Cuba)
- Hospital Dr. Sotero del Río (Santiago, Chile)
- Hospital Escuela del Litoral Paysandú (Paysandú, Uruguay)
- Hospital General Dr. Agustín O'Horán (Yucatán, México)
- Hospital Universitario "Luis Razetti" (Barcelona, Venezuela)
- Hospital Español Auxilio Mutuo (San Juan, Puerto Rico)
- Hospital General de Occidente (Jalisco, México)
- Hospital del Niño "Dr. Ovidio Altaga Uru" (La Paz, Bolivia)
- Hospital El Cruce (Buenos Aires, Argentina)
- Hospital General de Medellín (Medellín, Colombia)
- Hospital Infantil Manuel de Jesús Rivera (Managua, Nicaragua)
- Hospital Interzonal de Niños "Eva Perón" (Catamarca, Argentina)
- Hospital Universitario de Torreón (Torreón, México)
- Yale University (New Haven, CT, USA)
- University of California San Diego, Kawasaki Disease Research Center (San Diego, CA, USA)

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