

## BARTTER SYNDROME WITH EPISODE OF STATUS EPILEPTICUS : WHAT SHOULD WE DO AND EXPECT IN THE FUTURE?

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### Introduction:

Bartter Syndrome (BS) is a rare and inherited disease resulting in defects in renal tubular handling of sodium, potassium and chloride caused by different genetic mutations with the molecular defects of chloride reabsorption originating at different sites of the nephron in each condition which is lead to magnesium and calcium abnormality.<sup>1,3</sup> It can be accompanied by seizure as early manifestation.<sup>2</sup> The presence of epilepsy in BS case is rare but can appear as clinical manifestations.<sup>4</sup>

### Case Presentation:

A 15-year-old girl, with a history of status epilepticus BS, was referred for further treatment because of frequent recurrent seizures. She has never had an EEG before. So it will be planned later to establish the diagnosis of epilepsy. The patient arrived at the ER with GCS 22/24 (post diazepam recent minutes ago) and normal physical examination. No family history of epilepsy. History of recurrent hypokalemia and often complain of weakness, polyuri, and stiff body. She was taking regularly valproic acid and potassium chloride for recent months. On first day of treatment, electrolyte serum examination Na=131 mEq/L, K=3,8 mEq/L, Ca=7,8mg/dL. On BGA examination, we got metabolic alkalosis, pH=7,57, pCO<sub>2</sub>=27,4mmHg, HCO<sub>3</sub>=25,3mmol/L, BE=4,2mEq/L. Phenytoin serum 17,93mcg/mL. She got treatment phenytoin, valproic acid, and potassium chloride.

### Conclusion:

Patients with BS, the electrolyte should be monitored carefully since it might precipitate seizure. However the presence of epilepsy can not be simply overlooked and should be proven with EEG.

**Keywords:** bartter syndrome, hypokalemia, metabolic alkalosis, seizure



PKB XV  
ILMU KESEHATAN ANAK FKUB



# **BUKU PROGRAM DAN KUMPULAN ABSTRAK**

**PENDIDIKAN KEDOKTERAN  
BERKELANJUTAN (PKB) XV**  
*In CONJUNCTION with*  
**MALANG INTERNATIONAL CONFERENCE  
PEDIATRIC (MICP) 2023**

## PENDAHULUAN

Semakin berkembangnya ilmu dan teknologi dalam bidang kesehatan, menyebabkan semakin baiknya diagnosis dan tatalaksana penyakit kronik khususnya dibidang anak. Diperlukan tatalaksana yang komprehensif dalam tatalaksana penyakit kronik pada anak. Oleh karena itu diperlukan suatu wadah dalam update ilmu pengetahuan pada anak dengan penyakit kronik. Pendidikan Kedokteran Berkelanjutan (PKB) merupakan suatu acara untuk meningkatkan pengetahuan dan merupakan upaya untuk meningkatkan kualitas kesehatan anak dengan sakit kronis.

Saat ini Universitas Brawijaya (UB) merupakan salah satu dari 11 universitas yang tergabung dalam klaster pertama di Indonesia dan ini menjadi modal untuk memperkuat institusi ini menjadi World Class University. Universitas Brawijaya telah mendapatkan akreditasi A untuk standar APT dari BAN PT, memiliki peringkat internasional dan nasional yang baik, yang termasuk dalam peringkat dunia 700+ dan 301-350 Asia berdasarkan QSWUR Asia. Selanjutnya menurut hasil pemeringkatan SDG atau dari THE Impact Ranking 2020, UB menduduki peringkat keseluruhan 201-300 dan peringkat kelima di Indonesia untuk versi 4ICU. Bersama 11 perguruan tinggi terkemuka Indonesia, UB didorong oleh pemerintah melalui Dikti, Ditjen Iptek dan Perguruan Tinggi Kemenristekdikti untuk meningkatkan peringkatnya menjadi 500 perguruan tinggi sedunia menurut ke QSWUR. Pemeringkatan di atas didasarkan pada indikator internasionalisasi yang ditetapkan QSWUR, yaitu reputasi akademik, reputasi pemberi kerja, penelitian dan publikasi, serta internasionalisasi.

Puji syukur kehadiran Allah SWT atas segala limpahan rahmat dan karunia-Nya sehingga Departemen Ilmu Kesehatan Anak Fakultas Kedokteran Universitas Brawijaya/RSU Dr Saiful Anwar Malang dapat menyelenggarakan kegiatan Simposium PKB 2023 sebagai kegiatan tahunan. Setelah berakhirnya kebijakan PPKM dalam pandemi Covid-19 saat ini, Pendidikan Kedokteran Berkelanjutan (PKB) tahun ini diselenggarakan secara bersamaan dengan *Malang International Conference Pediatric (MICP)* dan diselenggarakan secara offline. Adapun tema yang diambil adalah ***“Comprehensive Management for Pediatric Chronic Diseases: A Global Challenge (preventif/ update management/ future concept)***. Pendidikan Kedokteran Berkelanjutan (PKB) *in conjunction with Malang International Conference Pediatric (MICP)* diselenggarakan pada hari sabtu dan minggu tanggal 3-4 Juni 2023 dengan berbagai topik yang diangkat pada berbagai bidang, melibatkan seluruh divisi ilmu kesehatan anak, antara lain infeksi, neonatologi, alergi imunologi, gastroenterohepatologi, nefrologi, endokrinologi, hemato-onkologi, kardiologi, pediatri sosial, nutrisi dan penyakit metabolismik, emergensi dan rawat intensif anak, respirologi, dan neurologi. Dengan adanya kegiatan ini diharapkan peserta dapat menambah ilmu dan berbagi pengalaman klinis terutama terkait bidang Ilmu Kesehatan Anak demi kesehatan anak bangsa.

## TUJUAN KEGIATAN

- Meningkatkan pengetahuan dokter umum dan dokter spesialis anak dalam menghadapi berbagai problematika kesehatan pada anak
- Menyediakan forum konsultasi dan tukar pengalaman mengenai isu terkini dan updating dalam kondisi penyakit kronis pada anak saat ini

## TEMA

***“Comprehensive Management for Pediatric Chronic Diseases: A Global Challenge (preventif/ update management/ future concept).***

## PELAKSANAN

Metode : Seminar offline, Diskusi, Presentasi Abstrak  
Tempat : Hotel Santika, Malang  
Hari/Tanggal : Sabtu-Minggu, 3-4 Juni 2023

## SPONSOR



## Sekretariat Departemen Ilmu Kesehatan Anak

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# SUSUNAN ACARA

**HARI - 1 (SABTU, 3 JUNI 2023)**

<b>Waktu (WIB)</b>	<b>Kegiatan</b>	<b>Tempat</b>
07.00-08.00	Registrasi	Meja Registrasi
08.00-08.05	Pembukaan oleh MC	
08.05-08.10	Menyanyikan lagu Indonesia Raya	
08.10-08.15	Laporan Ketua Panitia Dr. Fadilah Mutaqin, Sp.A, M. Biomed	
08.15-08.50	Sambutan dan Pembukaan oleh Dekan FK Universitas Brawijaya DR. Dr. Wisnu Barlianto Sp.A(K), MSi.Med	
08.25-08.40	Materi Etik DR. Dr. Renny Suwarniati, Sp.A(K)	
08.40-08.50	Topik 1: Update Management of Pediatric Chronic Diseases: A Global Challenge Moderator: Dr. Brigitta Ida RVC, Sp.A(K), M.Kes	Ballroom 1 dan 2
08.50-09.10	Update Management of NEC in Preterm Baby Prof. DR. Dr. Rinawati Rohsiswatmo, Sp.A(K)	
09.10-09.30	The Role of Pediatrician in Early Management of Children with Lupus Nephritis: A Challenge DR. Dr. Krisni Subandiyah, Sp.A(K)	
09.30-09.50	Early Detection and Prompt Treatment in Pediatric's Chronic Hepatitis B DR. Dr. Satrio Wibowo, Sp.A(K), MSi.Med	
09.50-10.05	Diskusi	
10.05-10.15	Topik 2: Update Prevention of Pediatric Chronic Diseases: A Global Challenge Moderator: Dr. Ariani, Sp.A(K), M.Kes	
10.15-10.35	Prevention and Management of Developmental Problems in Children with Chronic Diseases DR. Dr. Ahmad Suryawan, Sp.A(K)	
10.15-10.35	Prevention of Infectious Diseases through Immunization: Future Concept Dr. Savitri Laksmi Winaputri, Sp.A(K)	Ballroom 3, Restaurant, Selasar, Booth
10.35-11.15	Prevention of TB in Children: Identification of Contracted Management of Latent TB Dr. M. Fahrul Udin Sp.A(K), M.Kes	
11.15-12.30	Diskusi	
11.30-12.30	ISHOMA	

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**HARI - 1 (SABTU, 3 JUNI 2023)**

<b>Waktu (WIB)</b>	<b>Kegiatan</b>	<b>Tempat</b>
12.30-12.55	Industrial Symposium 1 PT. Takeda Prof. Hinky Hindra Irawan Sp. A (K) Protect Our Children Against Dengue: Why Do We Need Vaccine?	
12.55-13.20	DR. Dr. Irene Ratridewi Sp.A(K), M.Kes New Dengue Vaccine: What We Need to Know in Clinical Practice?	
13.20-13.30	Diskusi Moderator: Dr. Kurniawan Taufiq Kadafi Sp.A(K), M.Biomed	
13.30-13.40	Topik 3: Update Future Concept of Pediatric Chronic Diseases: A Global Challenge (Part 1) Moderator: Dr. Sony Wicaksono Sp.A(K), M.Kes	Ballroom 3, Restaurant, Selasar, Booth
13.40-14.00	Complications of Thalassemia Major in Children: Challenges for Physicians Dr. Susanto Nugroho, Sp.A(K)	
14.00-14.20	What's New in Atopic Dermatitis DR. Dr. Wisnu Barlianto, Sp.A(K), MSi.Med	
14.20-14.35	Diskusi	
14.35-15.05	Industrial Symposium 2 PT GSK Dr. Eko Sulistijono, Sp.A(K) Vaksinasi DPT Pada Bayi Prematur Moderator: Dr. Setya Mithra Hartiastuti Sp.A(K), MSi.Med	
15.05-15.15	Penutup oleh MC	

# SUSUNAN ACARA

## HARI - 2 (MINGGU, 4 JUNI 2023)

Waktu (WIB)	Kegiatan	Tempat
MICP Session 06.30-07.00	Persiapan presentasi poster	Lobi Ballroom
07.00-08.00	Presentasi dan penilaian poster	
Waktu (WIB)	Kegiatan	Tempat
07.00-08.00	Registrasi	Meja Registrasi
07.50-08.00	Pembukaan oleh MC	
08.00-08.05	Topik 3: Update Future Concept of Pediatric Chronic Diseases: A Global Challenge (Part 2) Moderator: Dr. Astrid Kristina Kardani Sp.A(K), M.Biomed	
08.05-08.25	Endocrine Effectsin Pediatric's Chronic Diseases DR. Dr. Harjoedi Adji Tjahjono Sp.A(K)	
08.25-08.45	Early Management for Congenital Heart Disease: An Update Dr. Dyahris Koentartiwi, Sp.A(K)	
08.45-09.05	Nutritional Management in Children with Chronic Diseases Dr. Anik PuryatniSp.A(K)	Ballroom 1 dan 2
09.05-09.15	Diskusi	
09.15-09.45	Industrial Symposium 3 PT Pfizer DR. Dr. Irene Ratridewi, Sp.A(K), M.Kes The Importance of Compliance PCV Dose and Catch-Up Strategy in Pediatric and Adolescent Moderator: DR. Dr. Ery Olivianto, Sp.A(K)	
09.45-09.55	Malang International Conference Pediatric (MICP) Moderator: Dr. Saptadi Yuliarto, Sp.A(K), M.Kes	
09.55-10.25	Chronic Illness in Pediatric Critical Care: The Recent Challenges Prof. Satoshi Nakagawa, MD	
10.25-10.55	Challenges and Hopes for Patient with Chronic Neurological Disease Prof. Dr. Wong Sau Wei, MBBS, MRCPCH	Ballroom 1 dan 2
10.55-11.10	Diskusi	
11.10-11.30	Penutup Pengumuman Poster PKB dan MICP MC	
11.30-selesai	ISHOMA	Ballroom 1, 2, 3, Selasar, Booth





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# DAFTAR POSTER DAN ABSTRAK



PENDIDIKAN KEDOKTERAN BERKELANJUTAN  
(PKB) IKA XV

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2 MALANG INTERNATIONAL CONFERENCE  
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## DAFTAR PESERTA PRESENTASI POSTER

No	Nama	Jenis	Judul
1	Izdihar Rahmadinda, Susanti	Case Report	Severe anemia in 3-year-old girl with Acute Lymphoblastic Leukaemia in a type D Hospital: a case report
2	Rifqi Syarif Rinanto, Dwi Purnomo Sidhi	Case Report	Management of status epilepticus in a pediatric patient with a history of
3	Secundina Segunda Candida	Case Report	Early Diagnostic and Successful Empirical Treatment of Eisenmenger Syndrome Rare Complication: Brain Abscess; in Indonesia Rural Area: Atambua East Nusa Tenggara
4	Fanny August Ginting, Megan Quinka Dwidara Toding	Case Report	The role of first-level health facilities in detecting undernutrition in rural areas
5	Rika Oktania Sari, Bayu Prabowo	Case Report	Childhood asthma and passive smoking : a case report
6	Christian Nopiandi, Susanto Nugroho dan Sony Wicaksono	Case Report	Acute lymphoblastic leukemia in a 15-year-old boy with obesity and diabetes
7	Rhenislawaty, Ery Olivianto,Muh.Fahrul Udin	Case Report	Case report : diagnosing pulmonary tuberculosis in a two years old boy with prolonged use mechanical ventilation
8	Kirnia Tri Wulandari, Harjoedi Aji Cahyono, Irfan agus Salim, Fadilah Mutaqin	Case Report	Case report: A Fourteen Years Old Girl with Type 1 Diabetes Mellitus with Cataract Diabeticum
9	Oriza Malta Damayanti, Ivan Simanto, Alika Anisa Nishihara	Case Report	Acute post streptococcal glomerulonephritis induce acute kidney injury in pediatric at limited resource setting: a case report
10	Ayu Dwi Mufidah, Agus Cahyono	Case Report	Bartter syndrome with episode of status epilepticus : what should we do and expect in the future?
11	Fakhri Abid Abdulhadi, Ernita Selviana	Case Report	Lymphatic filariasis presenting as lower limbs lymphoedema in a pediatric patient with marasmus in malaka regency, NTT: a case report
12	Astalitha Lorel Tania	Case Report	Dengue-induced acute kidney injury in children: a case report
13	Ayu Pisita Wulandari , Zahra Fadhilazka Tiara	Case Report	A 6 month old patient with cleft lip palate, atrial septal defect, and presenting hyperkalemia : a case report
14	Emiliana Susanti Foris, Mario Realino Nara, Defranky Theodorus	Case Report	Multiple brain abscesses in one year old boy: therapeutic challenges in rural area
15	Ikha Noor Rakhmawati, Siti Nila	Case Report	Hyponatremi in childhood tuberculous meningitis: a case report
16	Nachtaya Bintang Irpawa, Alika Anisa Nishihara	Case Report	Relapsing nephrotic syndrome with recurrent hyponatremia and chronic kidney disease in pediatric patient : case report
17	Najwa Amalia, Dyahris Koentartiwi, Eko Sulistijono, Ardhani Ramadhanti	Case Report	Comprehensive management for improved outcome of persistent pulmonary hypertension of newborn in a one day old baby girl
18	Yudhistira Andarusukma	Original Research	<i>The Effect of Stress on Sleep Quality in Adolescents Aged 15-18 Year-Old with Asthma: A Cross-Sectional Study Based on the Indonesian Family Life Survey-5</i>
19	Grafita Dwi Kartikasari, Chasan Ismail	Original Research	Correlation between short stature with ferritin levels in major beta thalassemia patients at kediri district general hospital

20	Grafita Dwi Kartika Sari, Trinita Diyah Permatasari, Chasan Ismail, Meiliza Madona	Original Research	Correlation between adherence therapy of iron chelation levels with anthropometric status in major beta-thalassemia patients at kediri district general hospital
21	Afrizal Alif Azzam Muhyiddin, Achmad Ari Pratama, Dedy Budi Kurniawan, Taufiq Hidayat, Abdul Rohim	Original Research	Role of insulin growth factor (IGF) in stunting and its risk factors among developing countries population: a bioinformatics perspective on protein-protein interaction analysis
22	Detria Rahma Gasti, Aulia Sita Hapsari, Karima Iffa	Meta-Analysis	Comparison Efficacy and Safety Sodium Valproate Versus Combination Sodium Valproate and Levetiracetam For Treatment Epilepsy In Children: A Meta-Analysis
23	Atika Rahmah	Literature Review	Gut Microbiota and Non-Alcoholic Fatty Liver Disease (NAFLD) : a Role of Probiotic
24	Shafira Meidyana, Firstya Diyah Ekasiwi, Intan Permatasari, Haqiqotul Fikriyah, Kalista Wahyu Nuringhati, Duta Putra Sundana	Literature Review	Determinant of Early Infant Diagnosis (EID) Outcome in Mother-to-Child HIV Transmission
25	Ari Viandri Wismananda, Alvi L. Zahra	Literature Review	Vitamin D in children and adolescents with chronic kidney disease: a literature review
26	Nadzila Anindya Tejaputri, Salsabiila Maryam, Dina Clarisa, Putri Amelia	Sytematic Review dam Meta Analysis	Efficacy of ketogenic diet therapy in infants with epilepsy: a systematic review and meta-analysis
27	Vennia Riskia Tristanti, Rosalia Theodosia Daten Beyeng	Sytematic Review dam Meta Analysis	Efficacy of GLP-1 Agonist For Type 2 Diabetes In Children And Adolescent: A Systematic Review And Meta Analysis
28	Lestari Kanti Wilujeng, Ervin Monica	Sytematic Review dam Meta Analysis	Cognitive function and its associated factors in children with $\beta$ -thalassemia major: a systematic review and meta-analysis



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