



Vol.7 No.1 | Maret 2024

JURNAL BIOMEDIKA DAN KESEHATAN

Publikasi dari Fakultas Kedokteran Universitas Trisakti

Editorial
**Screening T4 and TSH in Early Detection of Congenital Hypothyroidism in Newborns:
What's the Dilemma?**
Yasmine Mashabi

Original Article
CD68 Expression on Macrophages as Anti-Inflammatory Effect of Tamarillo (*Solanum betaceum Cav.*) Fruit Peel Ethanol Extract (Study on Carrageenan-Induced Buccal Mucosa of Rats)
Jelita Febrilia Bindaputri, Janti Sudiono

Relationship Between Blood Lead (Pb) Levels and Hypertension in Motorcycle Taxi Drivers
Julian Chendrasari, Indah Widya Lestari, Reza Digambiro et al

The association between Stress Levels and Social Support in Mothers Regarding Exclusive Breastfeeding in Samarinda
Ratih Wirapuspita Wisnuwardani, Nurul Afiah, Siti Aisyah et al

The Effect of Sleep Patterns to Incident of Hypertension: A Case-Control Study of Fishermen on the Puger Coast, Jember District
Nazilatul Wahyuni Munawaroh, Nur Fitri Widya Astuti

Patient Characteristics Correlation with Cost of Hospitalisation in Ischemic Stroke Geriatric Patient
Dhanang Prawira Nugraha, Martanty Aditya

The Relationship of Flat Foot to Agility in Children Aged 7-10 Years
Ririn Afyora, Nuryani Sidarta

The Correlation between Laboratory Metabolic Profile and Blood Pressure
Tjam Diana Samara, Magdalena Wartono, Adrianus Kosasih

Relationship Between Pterygium and Dry Eye Syndrome Among Delivery Motorbike Drivers
Erlani Kartadinata, Husnun Amalia, Anggraeni Adiwardhani et al

Relationship between Blood Magnesium Level, Physical Fitness and Stress Level in Online Driver
Fransisca Chondro, Eveline Margo, Astri Handayani et al

Case Report
Painless Placental Abruption with 80% Retroplacental Bleeding: Case Report
Atut Cicih Mayasari, Nugroho Abikusno, Laksmi Maharani et al

The Challenges in Treating Obesity Patients in Major Depressive Disorder (MDD) Treatment: A Case Report
Erita Istriana, Verawati Sudarma

Review Article
Estradiol Towards Sepsis
Agustina Br. Haloho, Ramzi Amin, Mgs. Irsan Saleh

Review: an Overview of Neurodegenerative Diseases: Huntington, Alzheimer, and Parkinson
Ina Karlina, Eka Fitri Siti Andriyani, Arini Dian Pratiwi

Role Of Exercise Intensity in Skeletal Muscle Hypertrophy
Nur Ayu Virginia Irawati, Nova Sylviana, Leonardo Lubis

Dewan Redaksi



Ketua Penyunting (Editor-in-Chief)

Dr. dr. Husnun Amalia, Sp.M

Departemen Ilmu Penyakit Mata, Fakultas Kedokteran
Universitas Trisakti, Indonesia

Wakil Ketua Penyunting (Deputy Editor-in-Chief)

Dr. Drs. ML. Edy Parwanto, M.Biomed

Departemen Biologi Kedokteran, Fakultas Kedokteran
Universitas Trisakti, Indonesia

Penyunting Ahli (Associate Editor)

dr. Nany Hairunisa, MCHSc

Departemen Ilmu Kedokteran Kerja, Fakultas Kedokteran
Universitas Trisakti, Indonesia

Dewan Penyunting (Editorial Boards)

Prof. Dr. dr. Adi Hidayat, MS (Indonesia)

Dr. dr. Elly Herwana, M.Biomed (Indonesia)

Dr. dr. Yenny, Sp.FK (Indonesia)

dr. Laksmi Maharani, Sp.OG (Indonesia)

dr. Monica Dwi Hartanti, M.Biomed, PhD (Indonesia)

Dr. dr. Raditya Wratsangka, Sp.O.G, Subsp. Obginsos (Indonesia)

Dr. Siti Sugih Hartiningsih, S.Si, M.Kes (Indonesia)

dr. Dito Anurogo, M.Sc (Indonesia)

Editor Produksi

Afton Muhandis, S.I.Kom

Alamat Korespondensi

Fakultas Kedokteran Universitas Trisakti

Jalan Kyai Tapa Np. 260 (Kampus B) Grogol, Jakarta 11440

Telp. 021-5672731 ext. 2502 | Fax. 021-5660706

www.jbiomedkes.org | E-mail: jbiomedkes@trisakti.ac.id

Penerbit

Fakultas Kedokteran Universitas Trisakti

Petunjuk Penulisan

Format penyusunan manuskrip

Manuskrip diketik pada kertas berukuran A4 (210 x 297 mm) dengan batas tepi 254 mm (*margin Normal*), huruf diketik dengan tipe huruf (*font*) *Times New Roman*, besar huruf (*font size*) 12 point dengan menggunakan spasi rangkap 2 (*double space*). Setiap bagian dari manuskrip dimulai pada halaman baru dengan urutan sebagai berikut: halaman judul, abstrak dan kata kunci (*keywords*), teks keseluruhan, ucapan terima kasih, daftar pustaka, tabel dan gambar (setiap tabel dan gambar pada halaman terpisah). Nomor halaman dicantumkan secara berurutan dimulai dari halaman judul pada sudut sebelah kanan bawah. Manuskrip sebaiknya ditulis maksimal 16 halaman.

Halaman judul

Halaman judul mencakup: a) judul manuskrip yang dibuat sesingkat mungkin, spesifik informatif dan ringkasan judul tidak lebih dari 40 karakter (hitung huruf dan spasi) yang dicantumkan dibawah judul, b) nama penulis disusun berurutan dengan nama mahasiswa sebagai pengarang pertama, diikuti oleh Pembimbing sebagai pengarang kedua. Nama penulis ditulis lengkap tanpa gelar dan dicantumkan seperti aslinya, tidak dibalik seperti pada daftar pustaka dan sitasi, c) alamat setiap penulis, nama departemen dan lembaga afiliasi penulis, d) nama dan alamat penulis untuk korespondensi serta nomor telepon, nomor faksimili, alamat email. Judul penelitian dibuat jelas, singkat, spesifik, informatif, dan sesuai dengan topik manuskrip. Jumlah kata tidak lebih dari 12 kata agar mudah dan cepat dipahami pembaca.

Abstrak dan kata kunci

Abstrak berjumlah 200-250 kata ditulis dalam bahasa Indonesia dan Inggris. Abstrak berisikan latar belakang termasuk tujuan penelitian, metode, hasil, dan kesimpulan. Kata kunci dicantumkan di bawah abstrak pada halaman yang sama sebanyak 4-6 kata. Bagian abstrak merupakan ringkasan dari isi makalah yang dibuat secara singkat, informatif, dengan menekankan pada aspek baru dan penting dari penelitian.

Teks

Teks makalah manuskrip dibagi dalam beberapa bagian dengan judul sebagai berikut: **Pendahuluan, Metode, Hasil, Pembahasan, Kesimpulan dan saran.**

Pendahuluan

a. Latar belakang merupakan bagian yang menjelaskan alasan mengapa masalah ini penting untuk diteliti. Bagian ini memuat penjelasan mengapa masalah itu dipandang menarik, penting, dan perlu diteliti untuk mencari pemecahannya. Penjelasan dapat diperoleh dari penelusuran pustaka yang berkaitan erat dengan

masalah yang diteliti.

- b. Keaslian penelitian dikemukakan dengan menunjukkan bahwa masalah yang dihadapi belum pernah dipecahkan oleh peneliti terdahulu atau dinyatakan dengan tegas perbedaan penelitian ini dengan penelitian terdahulu.
- c. Tujuan penelitian yang menjelaskan hasil yang akan dicapai.

Metode

Metode penelitian berisi uraian terpadu dan sistematis mengenai bagaimana penelitian akan dilaksanakan. Metode terdiri dari :

- a. Desain
- b. Populasi / sampel (subjek) penelitian
Diuraikan kriteria inklusi dan eksklusi subjek penelitian, cara pemilihan sampel (subjek penelitian) secara random atau non-random, serta besar sampel yang akan di pilih. Teknik pemilihan sampel harus dijelaskan secara rinci. Bila perlu dibuat alur pemilihan sampel.
- c. Bahan dan alat serta pengukuran
Bahan dan alat yang harus disajikan pada laporan terbatas pada bahan (materi) dan alat utama yang diperlukan untuk penelitian dan harus disebutkan spesifikasinya. Prosedur pengukuran perlu dijelaskan sesuai dengan tahapan yang dilakukan.
- d. Alur kerja penelitian
Jalannya penelitian perlu dijelaskan mengenai jenis pendekatan yang dipakai untuk mendapatkan data, melalui pendekatan laboratorium, klinik, komunitas, observasi, dll.
- e. Analisis data
Perlu dijelaskan jenis teknik statistik yang digunakan untuk menjawab masalah dan mencapai tujuan penelitian. Data yang diperoleh dapat dianalisis menggunakan teknik statistik secara parametrik dan non-parametrik.

Hasil

Suatu hasil penelitian hendaknya disajikan dengan jelas, logis, runut, sehingga mudah untuk dimengerti. Hasil penelitian sebaiknya ditampilkan selain dalam bentuk narasi dapat pula berupa gambar, tabel, foto, dan grafik sehingga memudahkan untuk dipahami. Hasil dan interpretasi analisis statistik dituliskan secara jelas dalam uraian hasil penelitian.

Pada tahap awal disajikan distribusi karakteristik subjek penelitian, yang biasanya dibuat pada sebuah tabel. Kemudian disajikan temuan penting yang diperoleh, kalau cukup banyak sebaiknya pada sebuah tabel. Bila terbatas misalkan hanya satu atau dua temuan cukup dalam bentuk narasi/teks.

Tabel, bagan/gambar, grafik dibuat dengan jelas, diberi nomor urut serta keterangan yang jelas. Keterangan

tabel diletakan di atas tabel dan keterangan gambar diletakkan di bawah gambar. Maksimal tabel dan gambar 5. Semua tabel, grafik dan gambar diberi nomor dan keterangan yang jelas. Setiap tabel dianalisis dan diinterpretasi secara sistematis, dan hasilnya ditulis di bawah tabel tersebut. Perhitungan statistik detail tidak perlu ditulis dalam bagian hasil ini. Bila perhitungan statistik dianggap perlu ditulis, maka sebaiknya diletakkan dalam lampiran saja.

Pembahasan

Langkah awal harus diuraikan temuan penting yang diperoleh dari penelitian sesuai dengan tujuan penelitian. Kemudian bandingkan hasil penelitian yang diperoleh dengan hasil-hasil penelitian sebelumnya. Perlu dijelaskan kesesuaian dan ketidaksesuaian hasil penelitian yang didapat terhadap kerangka teori atau hasil penelitian lain yang telah dilakukan sebelumnya. Selanjutnya menggunakan teori-teori yang ada uraikan mekanisme terjadinya hasil penelitian tersebut. Bagian pembahasan juga menjelaskan mengenai kelemahan dan kelebihan penelitian yang telah dilakukan. Uraikan implikasi dari hasil penelitian yang diperoleh.

Kesimpulan

Kesimpulan hendaknya dibuat dalam bentuk narasi dan menguraikan secara singkat, jelas, padat menurut urutan yang sistematis. Bagian ini memuat tentang hasil penelitian yang telah diperoleh untuk menjawab tujuan penelitian. Saran menguraikan perlunya dilakukan penelitian lebih lanjut untuk memperbaiki kelemahan/keterbatasan dari penelitian yang telah dilakukan.

Ucapan terima kasih

Ditujukan kepada pihak-pihak yang memberikan bantuan dana dan dukungan antara lain dukungan dari bagian dan lembaga, para profesional yang memberikan kontribusi dalam penyusunan makalah, dan untuk penguji I maupun penguji II. Pembimbing tidak perlu dicantumkan pada Ucapan Terima Kasih karena sudah dicantumkan sebagai penulis.

Daftar Referensi

Daftar referensi/rujukan hanya mencatatumkan rujukan yang telah digunakan dan ditulis menurut sistem Vancouver.

Online Submission

Penulis dapat mengirim naskah manuskrip melalui *online submission* di *website* Jurnal Biomedika dan Kesehatan.

Langkah online submission:

1. Pastikan naskah yang akan diunggah sudah mengikuti semua petunjuk penulisan
2. Lakukan pendaftaran author di : <https://jbiomedkes.org/index.php/jbk/user/register>
3. Setelah terdaftar silakan unggah naskah manuskrip dan isi form yang terdapat di dalam website, dan ikuti langkah selanjutnya.

Daftar Cek Pengiriman Naskah Manuskrip

- Naskah manuskrip belum pernah dipublikasikan sebelumnya, juga tidak dalam pengajuan ke jurnal lain.
- File manuskrip harus berformat OpenOffice, Ms. Word atau RTF dokumen, *font 12, Times New Roman, double spacing*.
- Halaman judul harus memuat jelas judul, nama lengkap penulis tanpa gelar, departemen penulis, universitas, alamat lengkap, nomor telepon dan email.
- Pelaporan data manuskrip dari penelitian yang melibatkan manusia dan hewan memerlukan persetujuan formal (kaji etik) oleh dewan peninjau atau komisi etik institusi yang bersangkutan.
- Daftar rujukan memuat semua rujukan yang terdapat di dalam manuskrip dan ditulis sesuai urutan pengutipannya menggunakan sistem Vancouver.

Daftar Isi



Jurnal Biomedika dan Kesehatan - Vol. 7 No. 1 Maret 2024

Editorial

- Screening T4 and TSH in Early Detection of Congenital Hypothyroidism in Newborns: What's the Dilemma?**

1

Yasmine Mashabi

Original Article

- CD68 Expression on Macrophages as Anti-Inflammatory Effect of Tamarillo (*Solanum betaceum* Cav.) Fruit Peel Ethanol Extract (Study on Carrageenan-Induced Buccal Mucosa of Rats)**

6

Jelita Febrilia Bindaputri, Janti Sudiono

- Relationship Between Blood Lead (Pb) Levels and Hypertension in Motorcycle Taxi Drivers**

17

Julian Chendrasari, Indah Widya Lestari, Florinda Ilona et al

- The association between Stress Levels and Social Support in Mothers Regarding Exclusive Breastfeeding in Samarinda**

24

Ratih Wirapusita Wisnuwardani, Nurul Afiah, Siti A'isyah et al

- The Effect of Sleep Patterns to Incident of Hypertension: A Case-Control Study of Fishermen on the Puger Coast, Jember District**

34

Nur Fitri Widya Astuti, Nazilatul Wahyuni Munawaroh

- Patient Characteristics Correlation with Cost of Hospitalisation in Ischemic Stroke Geriatric Patient**

44

Dhanang Prawira Nugraha, Martanty Aditya

- The Relationship of Flat Foot to Agility in Children Aged 7-10 Years**

52

Nuryani Sidarta, Ririn Afyora

- The Correlation between Laboratory Metabolic Profile and Blood Pressure**

61

Diana Samara, Magdalena Wartono, Adrianus Kosasih

- Relationship Between Pterygium and Dry Eye Syndrome Among Delivery Motorbike Drivers**

71

Erlani Kartadinata, Husnun Amalia, Anggraeni Adiwardhani et al

- Relationship between Blood Magnesium Level, Physical Fitness and Stress Level in Online Driver**

82

Fransisca Chondro, Eveline Margo, Astri Handayani et al

Case Report	
Painless Placental Abruptio with 80% Retroplacental Bleeding: Case Report	91
<i>Atut Cicih Mayasari, Nugroho Abikusno, Laksmi Maharani et al</i>	
The Challenges in Treating Obesity Patients with Major Depressive Disorder (MDD) Treatment: a Case Report	98
<i>Erita Istriana, Verawati Sudarma</i>	
Review Article	
Estradiol Towards Sepsis	
<i>Agustina Br. Haloho, Ramzi Amin, Mgs. Irsan Saleh et al</i>	104
Review: an Overview of Neurodegenerative Diseases: Huntington, Alzheimer, and Parkinson	113
<i>Ina Karlina, Eka Fitri Siti Andriyani, Arini Dian Pratiwi</i>	
Role Of Exercise Intensity in Skeletal Muscle Hypertrophy	124
<i>Nur Ayu Virginia Irawati, Nova Sylviana, Leonardo Lubis</i>	

CASE REPORTS

Painless Placental Abruption with 80% Retroplacental Bleeding: Case Report

**Kejadian Solusio Plasenta tanpa Rasa Nyeri dengan Perdarahan Retroplasenta 80%:
Laporan Kasus**

Atut Cicih Mayasari¹ , Nugroho Abikusno², Laksmi Maharani¹, Raditya Wratsangka¹

¹Department of Obstetrics and Gynecology, Faculty of Medicine, Universitas Trisakti

²Department of Nutrition Sciences, Faculty of Medicine, Universitas Trisakti

 atutcicihmayasari@trisakti.ac.id

 <https://doi.org/10.18051/JBiomedKes.2024.v7.91-97>

ABSTRACT

The maternal mortality rate in Indonesia is still high. According to the Indonesian Household Health Survey (SKRT) in 2001 found that bleeding in pregnancy contributes as the main cause of maternal mortality. Antepartum hemorrhage can be caused by placental abruption (PA) and placenta previa. This bleeding condition is an emergency case because it threatens the lives of both mother and fetus (mother-fetal dyad). Placental abruption is usually accompanied by pain due to continuous uterine contractions. In this case, although concealed hematoma exists in almost 80% of PA cases, the mother shows no sign or symptom even though the fetus is severely at risk. This condition can cause delayed management that leads to mother and fetal mortality, known as asymptomatic placental abruption.

Keywords: placental abruption; Maternal death; asymptomatic

ABSTRAK

Angka kematian ibu di Indonesia masih cukup tinggi. Berdasarkan Survei Kesehatan Rumah Tangga Indonesia (SKRT) tahun 2001, perdarahan memberikan kontribusi terbesar terhadap kematian ibu. Perdarahan antepartum dapat disebabkan oleh solusio plasenta dan plasenta previa. Keadaan ini merupakan kondisi gawat darurat, karena mengancam jiwa ibu maupun janinnya. Solusio plasenta biasanya disertai oleh rasa nyeri akibat kontraksi uterus yang terus menerus. Namun pada kasus ini, walaupun perdarahan retroplasenta terjadi hampir 80% dan menimbulkan morbiditas pada janin, namun pasien tidak memberikan tanda dan gejala nyeri tersebut. Keadaan ini bisa menyebabkan terlambatnya diagnosis dan penanganan yang berujung pada kematian ibu dan janin. Kondisi ini disebut asimptomatis solusio plasenta.

Kata Kunci: Solusio plasenta; Kematian ibu; asimptomatis

INTRODUCTION

Placental abruption is one of the causes of antepartum hemorrhage. This bleeding occurs when pregnancy reaches more than 20 weeks of gestational age, even though there are some

occurrences after 22 weeks. This bleeding occurs due to the separation of the placenta from the uterus. This placental abruption can occur totally or partially. Separation of the placenta can begin from the edge or the center part of the placenta, which is close to where the umbilical cord attaches. Early separation of the placenta can have a direct impact on the fetus. If placental abruption occurs in the center part of the placenta, sudden intrauterine fetal death can happen.¹⁻³

Placental abruption can cause hypovolemic shock because of bleeding, DIC, renal failure because of hypoxia in the renal tissue, and maternal death. It can increase fetal morbidity and mortality rates. Premature birth and fetal hypoxia occur most, followed by fetal death.^{4,5} The incidence rate of placental abruption is 0,4-1% of pregnancies. This incidence rate can be stated to be low, but it is a quite serious obstetric emergency because placental abruption can cause fetal and maternal death. That said, placental abruption can increase maternal and fetal mortality rates by 10%.^{5,6}

In terms of establishing the diagnosis of placental abruption, there are symptoms and signs that often occur, such as abdominal pain, vaginal bleeding, continuous uterine contractions, and abnormalities of fetal heart rate.³ Ultrasonography (USG) also becomes the supporting examination tool to confirm the diagnosis of placental abruption by finding retroplacental bleeding images. Abnormalities were found when fetal heart rate was recorded with cardiotocography (CTG).^{7,8}

Some of the risk factors that can cause placental abruption are premature ruptures of the membrane, hypertension, preeclampsia, history of cesarean section, smoking, trauma, young gestational age, uterus overdistention because of multiple pregnancies, polyhydramnios, and multiparity.⁹⁻¹²

CASE REPORT

A 33-year-old woman, 30 weeks pregnant, came to the emergency department with amniotic fluid leaks 3 hours ago. This amniotic fluid leak, accompanied by a slight discharge of blood from the birth canal. This is her third pregnancy, and two previous deliveries occurred by cesarean section. The indication of the first cesarean section was oligohydramnios, and the second cesarean section was the oblique presentation of the fetus. Her first child was five years old, and the second was two years old. Vital sign examination shows blood pressure at 120/80mmHg, respiration rate at 20 breaths per minute, heart rate at 89 beats per minute, and temperature at 36,6°C. General status examination shows ordinary signs.

CTG result shows category 2 with no acceleration (Picture 1). In this patient, intrauterine resuscitation and movement stimulation were performed to cause acceleration on the CTG image. The patient was given oxygen 2 liters per minute with a nasal cannula for 30 to 60 minutes, with the patient lying on her side, and given tocolytics with nifedipine 10mg orally also and planned to another CTG after that.

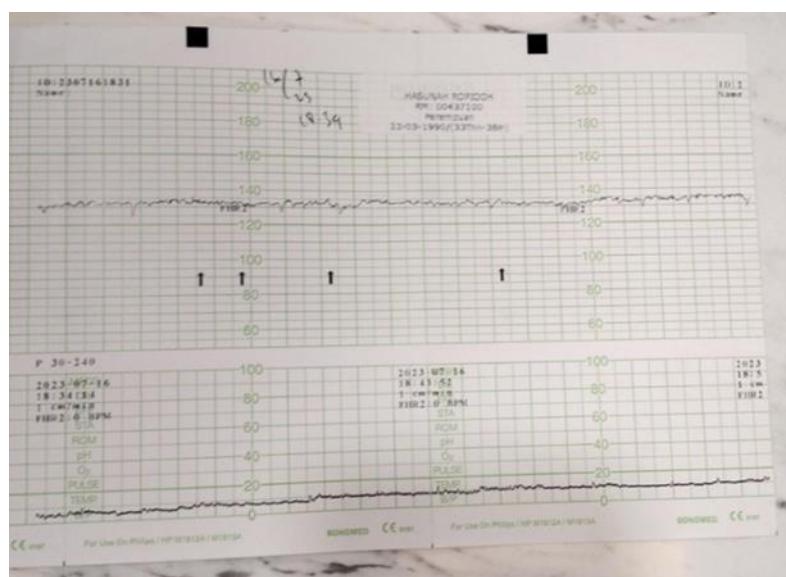
USG examination shows a single and living fetus with head presentation. Estimated fetal weight was 1450 g. The placenta was implanted at the posterior corpus of the uterus with sufficient amniotic fluid.

This patient's diagnosis was premature rupture of the membrane with the risk of contraction. Prophylaxis antibiotics Ceftriaxone was given 2x1 g intravenous, and Dexamethasone 2x6 mg intravenous was given for pulmonary maturation. Tocolytics with Nifedipine are planned to be given routinely.

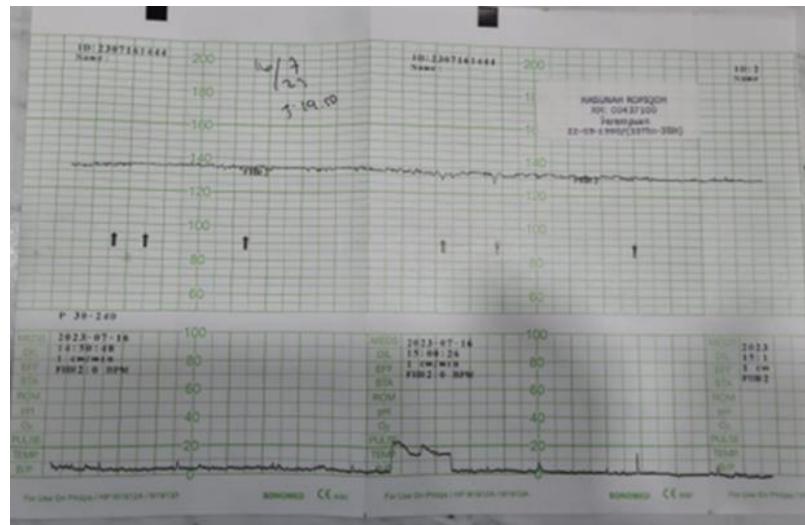
Blood laboratory test results when a patient came showed Haemoglobin at 12,3 g/dl, leukocyte at 14.250/ μ l, and thrombocyte at 182.000/ μ l. Intrauterine resuscitation was performed for 30 minutes, and after that, another CTG examination was accomplished. The result shows that the fetus is still in category 2 (Picture 2). The patient has been consulted by the fetomaternal department, with no improvement in CTG results after intrauterine resuscitation. A cesarean section was planned due to fetal hypoxia.

A cesarean section was performed approximately 3 hours after the patient came to the hospital. During the operation, after the fascia was opened, a cave-like uterus was found (Picture 3). The baby was born weighing 1600g with an APGAR score of 0 and 0 at the 1st and 5th minutes. Retroplacental bleeding was found. Blood and blood clots at the retroplacental part were around 700cc (Picture 4). The edge of the placenta is still attached to the endometrium, with blood trapped at the retroplacental part. Amniotic fluid was few and clear. Uterus cauvelair was present with good contraction and no hemorrhages post-cesarean section.

Postoperative peripheral blood laboratory showed hemoglobin at 8,8g/dl, leukocyte at 11.630/ μ l, and thrombocyte at 151.000/ μ l. On the second day of post-op observation, the patient was actively mobilized, uterus contraction was good, and there was normal vaginal bleeding suitable with the lochia rubra. Operation Scar was good, with no blood seepage. The patient was discharged on the third day. The patient was given an iron tablet and breastmilk suppression management.



Picture 1. CTG results when the patient came to the ED



Picture 2. CTG after intrauterine resuscitation



Picture 3. Uterus Cauvelair before and after birth



Picture 4. Placenta with retroplacental bleeding

DISCUSSION

The patient presents with leakages of clear amniotic fluid at the gestational age of 30 weeks and no abdominal pain. The fetal movement was still present. According to premature gestational age (30 weeks), premature pregnancy and premature rupture of membrane become this patient's diagnosis. With this diagnosis, conservative management was planned. Conservation management meant giving times for fetal pulmonary maturation and administering antibiotics to prevent infection.

Placental abruption was not confirmed at that time, because abdominal pain typically present with placental abruption was absent in this patient. USG examination also does not show the images of placental abruption. It stated that USG has a sensitivity of 24% and specificity of 96% to confirm the diagnosis of placental abruption. USG has a positive predictive value (PPV) of 88% and a negative predictive value (NPV) of 50% to diagnose placenta previa.¹³ The undiagnosed placental abruption at that time could be caused by an abruption process that still occurs.

The risk factors of placental abruption in this patient are rupture of membranes and the history of 2 previous cesarean sections. Blood and blood clots inside the retroplacental pouch are trapped, therefore no vaginal bleeding. In this patient, abdominal pain and continuous contractions are absent whereas blood and blood clots trapped inside the retroplacental pouch are plenty (700cc). This asymptomatic placental abruption can occur because the patient has a high threshold of pain. This uterus cauelair can cause hypotonia uteri and there was a probability of postpartum hemorrhages to be worried. However, in this patient, uterus contractions are quite good. The results of laboratory examination when patients come to the ED until post-operation show 4,5g/dl hemoglobin decreases, from 12,3 g/dl to 8,8 g/dl. This hemoglobin decrease is suitable with the patient's placental abruption that occurred at the patient's arrival to ED until a cesarean section was performed.^{12,14,15}

CONCLUSION

Placental abruption with typical symptoms such as vaginal bleeding, abdominal pain, and fetal distress are relatively easier to diagnose, so management is quicker. If placental abruption occurs with no abdominal pain, it needs sharp observation so that the case won't worsen and increase maternal morbidity and mortality.

ACKNOWLEDGEMENT

None

AUTHORS CONTRIBUTION

All authors contributed to this article

FUNDING

This case report is not funded by any institution.

CONFLICT OF INTEREST

The authors declared no conflict of interest related to this article

REFERENCES

1. Abhirami GR, Sathyavani C, Alexander MC, et al. Abruptio placenta: an obstetrician's nightmare. The New Indian Journal of OBGYN. 2023;10(1):149–53.
2. Brandt JS, Ananth CV. Placental abruption at near-term and term gestations: pathophysiology, epidemiology, diagnosis, and management. Vol. 228, American Journal of Obstetrics and Gynecology. Elsevier Inc.; 2023. p. S1313–29.
3. Baczkowska M, Kosińska-Kaczyńska K, Zgliczyńska M, et al. Epidemiology, Risk Factors, and Perinatal Outcomes of Placental Abruptio—Detailed Annual Data and Clinical Perspectives from Polish Tertiary Center. Int J Environ Res Public Health. 2022;19(9): 5148. doi: 10.3390/ijerph19095148
4. Lokhande V, Jadhav K, Kadam M, et al. Study of Maternal and Foetal Outcome in Abruptio Placentae. Int J Med Sci Clin Invent. 2021;8(01):5208–13.
5. de Moreuil C, Hannigsberg J, Chauvet J, et al. Factors associated with poor fetal outcome in placental abruption. Pregnancy Hypertens. 2021;23:59–65.
6. Li Y, Tian Y, Liu N, et al. Analysis of 62 placental abruption cases: Risk factors and clinical outcomes. Taiwan J Obstet Gynecol. 2019;58(2):223–6.
7. Hapdijaya I, Tessalina E, Herdiana EMN, et al. Placental Abruptio as a Complication of Preeclampsia that Causes Fetal Distress. Medical Clinical Update. 2022;1(1):36–8.
8. Qiu Y, Wu L, Xiao Y, et al. Clinical analysis and classification of placental abruption. Journal of Maternal-Fetal and Neonatal Medicine. 2021;34(18):2952–6.
9. Mushtaq R, Afzidi U, Bakhsh FM. A Retrospective Analysis of Risk Factors and Fetomaternal Outcome of Placental Abruptio. JIIMC.2020;15(1):9-13
10. Akadri A, Ogunsowo K, Odelola O. Abruptio Placenta: A retrospective analysis in a tertiary hospital, Sagamu, Nigeria. Trop J Obstet Gynaecol. 2018;35(2):142.

11. Schur E, Baumfeld Y, Rotem R, et al. Placental abruption: assessing trends in risk factors over time. *Arch Gynecol Obstet.* 2022;306(5):1547–54.
12. Wulandari IA. Hubungan Paritas Ibu (Primipara Dan Multipara) Terhadap Kejadian Solusio Plasenta Di RSUD Syekh Yusuf Gowa Tahun 2018. *Jurnal Kesehatan Delima Pelamonia.* 2018;2(1):36-40
13. Sherer DM, Kheyman M, Benayoun J, et al. Incidental sonographic finding of a concealed placental abruption leading to delivery at 37 weeks' gestation. *Journal of Clinical Ultrasound.* 2021;49(6):630–1.
14. Devabhaktuni P, Konkathi AK. Placental abruption an obstetric emergency: management and outcomes in 180 cases. *Int J Reprod Contracept Obstet Gynecol.* 2020;9(8):3188.
15. Li Y, Tian Y, Liu N, et al. Analysis of 62 placental abruption cases: Risk factors and clinical outcomes. *Taiwan J Obstet Gynecol.* 2019;58(2):223–6.



This work is licensed under a Creative Commons Attribution Non-Commercial 4.0 International License

Kejadian solusio plasenta tanpa rasa nyeri dengan perdarahan retroplasenta 80% : laporan kasus

by Atut Cicih Mayasari FK

Submission date: 14-May-2024 01:55PM (UTC+0700)

Submission ID: 2378963696

File name: Jurnal_Revisi_Atut.docx (1.89M)

Word count: 1772

Character count: 10178

CASE REPORTS

PAINLESS PLACENTAL ABRUPTION WITH 80% RETROPLACENTAL BLEEDING : CASE REPORT

KEJADIAN SOLUSIO PLASENTA TANPA RASA NYERI DENGAN PERDARAHAN RETROPLASENTA 80% : LAPORAN KASUS

ABSTRACT

The maternal mortality rate in Indonesia is still high. According to the Indonesian Household Health Survey (SKRT) in 2001 found that bleeding in pregnancy contributes as the main cause of maternal mortality. Antepartum hemorrhage can be caused by placental abruption (PA) and placenta previa. This bleeding condition is an emergency case because it threatens the lives of both mother and fetus (mother-fetal dyad). Placental abruption is usually accompanied by pain due to continuous uterine contractions. In this case, although concealed hematoma exists in almost 80% of PA cases, the mother shows no sign or symptom even though the fetus is severely at risk. This condition can cause delayed management that leads to mother and fetal mortality, known as asymptomatic placental abruption.

Keywords: placental abruption; Maternal death; asymptomatic.

ABSTRAK

Angka kematian ibu di Indonesia masih cukup tinggi. Berdasarkan Survei Kesehatan Rumah Tangga Indonesia (SKRT) tahun 2001, perdarahan memberikan kontribusi terbesar terhadap kematian ibu. Perdarahan antepartum dapat disebabkan oleh solusio plasenta dan plasenta previa. Keadaan ini merupakan kondisi gawat darurat, karena mengancam jiwa ibu maupun janinnya. Solusio plasenta biasanya disertai oleh rasa nyeri akibat kontraksi uterus yang terus menerus. Namun pada kasus ini, walaupun perdarahan retroplasenta terjadi hampir 80% dan menimbulkan morbiditas pada janin, namun pasien tidak memberikan tanda dan gejala nyeri tersebut. Keadaan ini bisa menyebabkan terlambatnya diagnosis dan penanganan yang berujung pada kematian ibu dan janin. Kondisi ini disebut asimptomatis solusio plasenta.

Kata Kunci : Solusio plasenta; Kematian ibu; asimptomatis

INTRODUCTION

Placental abruption is one of the causes of antepartum hemorrhage. This bleeding occurs when pregnancy reaches more than 20 weeks of gestational age, even though there are some occurrences after 22 weeks. This bleeding occurs due to the separation of placenta from the uterus. This placental abruption can occur totally or partially. Separation of placenta can begin from the

edge or from the center part of placenta which is close to the place where the umbilical cord attaches. Early separation of the placenta can have a direct impact on the fetus. If placental abruption occurs on the center part of placenta, sudden intrauterine fetal death can happen.^{1,2}

Placental abruption can cause hypovolemic shock because of the bleeding, DIC, renal failure because of hypoxia in the renal tissue, and maternal death. It can increase fetal morbidity and mortality rate. Premature birth and fetal hypoxia occurs most, followed by fetal death.³

The incidence rate of placental abruption is 0,4-1% of pregnancies. This incidence rate can stated to low, but it is a quite serious obstetric emergencies, because placental abruption can causes fetal and maternal death. That said placental abruption can increase maternal and fetal mortality rate by 10%³

In terms of establishing the diagnosis of placental abruption, there are symptoms and sign that often to occurs such as abdominal pain, vaginal bleeding, continuous uterine contractions and abnormalities of fetal heart rate.² Ultrasonography (USG) also becomes the supporting examination tool to confirm the diagnosis of placental abruption by finding retroplacental bleeding images. Abnormalities found when fetal heart rate recorded with cardiotocography (CTG)^{4,5}

Some of the risk factors that can cause placental abruption are premature ruptures of membrane, hypertension, preeclampsia, history of caesarean section, smoking, trauma, young gestational age, uterus overdistention because of multiple pregnancies, polyhydramnios and multiparity.⁶⁻⁸

CASE REPORT

A 33 years old woman, 30 weeks pregnant, came to the emergency department with amniotic fluid leaks since 3 hours ago. This amniotic fluid leaks accompanied by a small discharge of blood from birth canal. This is her third pregnancy, and two previous deliveries occurred by caesarean section. The indication of the first caesarean section⁴ was oligohydramnios, and the second caesarean section was oblique presentation of fetus. Her first child was 5 years old, and the second was 2 years old. Vital sign examination shows blood pressure at 120/80mmHg, respiration rate at 20 breaths per minute, heart rate at 89 beats per minute, and temperature at 36,6°C. General status examination shows normal sign.

CTG result shows category 2 with no acceleration (Picture 1). In this patient, intrauterine resuscitation and stimulation of movement was performed to cause acceleration on the CTG image. Patient was given oxygen 2 liters per minute with nasal cannula for 30 to 60 minutes, with the patient lying on her side, and given tocolytics with nifedipine 10mg orally also. Planned to another CTG after that.

USG examination shows single and living fetus with head presentation. Estimated fetal weight was 1450 g. The placenta was implanted at the posterior corpus of uterus with sufficient amniotic fluid.

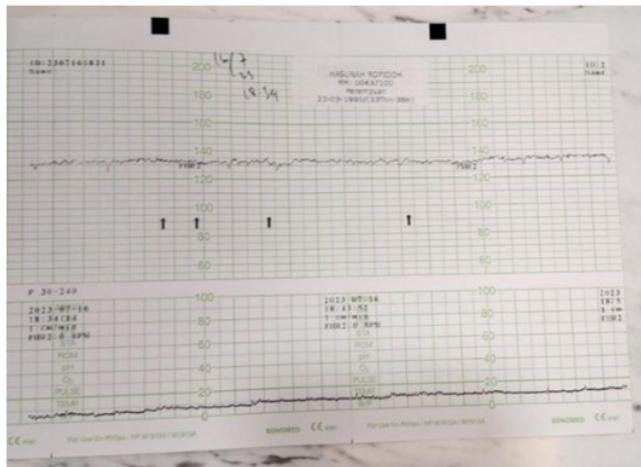
This patient's diagnose was premature rupture of membrane with the risk of contraction. Prophylaxis antibiotics Ceftriaxone was given 2x1 g intravenous and Dexamethasone 2x6 mg intravenous was given for pulmonary maturation. Tocolytics with Nifedipine planned to be given routinely.

Blood laboratory test results when patient came shows Haemoglobin at 12,3 g/dl, leukocyte at 14.250/ μ l, and thrombocyte at 182.000/ μ l.

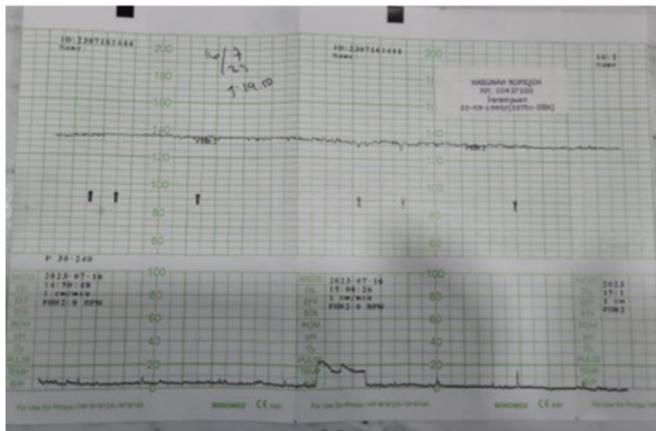
Intrauterine resuscitation was performed for 30 minutes, and after that another CTG examination was accomplished. The result shows that the fetus still in category 2 (Picture 2). Patient has been consulted to fetomaternal department, with no improvement of CTG result after intrauterine resuscitation. Caesarean section was planned due to fetal hypoxia.

Caesarean section was performed approximately 3 hours since patient came to the hospital. During the operation, after the fascia was opened, a cauvelair uterus was found (Picture 3). The baby was born weighing 1600g with APGAR score of 0 and 0 at the 1st and 5th minutes. Retroplacental bleeding was found. Blood and blood clots at the retroplacental part were around 700cc (Picture 4). The edge of placenta still attached to endometrium with blood trapped at retroplacental part. Amniotic fluid was few and clear. Uterus cauvelair was present with good contraction, and no hemorrhages post caesarean section.

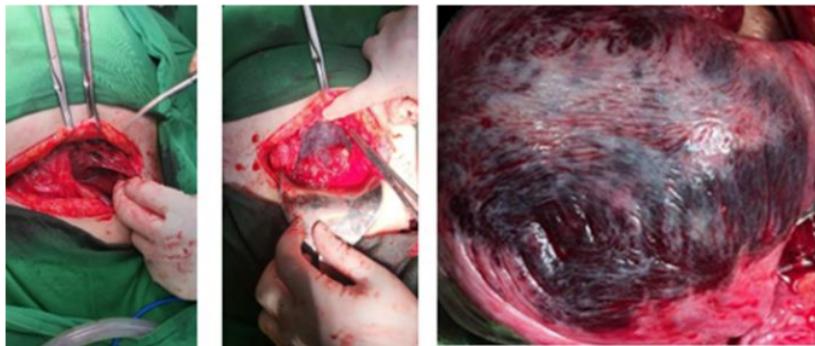
Postoperative peripheral blood laboratory showed that haemoglobin at 8,8g/dl, leukocyte at 11.630 / μ l, and thrombocyte at 151.000/ μ l. At the second day of post-op observation, the patient was actively mobilized, uterus contraction was good, and there was a normal vaginal bleeding suitable with the lochia rubra. Operation scar was good, no blood seepage. Patient was discharged at the third day. Patient was given iron tablet and breastmilk suppression management.



Picture 1. CTG result when patient came to ED



Picture 2. CTG after intrauterine resuscitation



Picture 3. Uterus Cauvelair before and after birth



Picture 4. Placenta with retroplacental bleeding and stillbirth baby

DISCUSSION

Patient present with the leakages of clear amniotic fluid at the gestational age of 30 weeks and no abdominal pain. Fetal movement was still present. According to premature gestational age (30 weeks) premature pregnancy and premature rupture of membrane become this patient's diagnosis. With this diagnosis, conservative management was planned. Conservation management meant to give times for fetal pulmonary maturation and administering antibiotics to prevent infection.

Placental abruption was not confirmed that time, because abdominal pain typically present with placental abruption was absent in this patient. USG examination also not showing the images of placental abruption. It stated that USG has sensitivity of 24% and specificity of 96% to confirm the diagnosis of placental abruption. USG has positive predictive value (PPV) of 88% and negative predictive value (NPV) of 50% to diagnose placenta previa.⁹ The undiagnosed placental abruption at that time could be caused by abruption process that still occurs.

The risk factors of placental abruption in this patient are rupture of membranes and the history of 2 previous caesarean section. Blood and blood clots inside the retroplacental pouch are trapped, therefore no vaginal bleeding. In this patient, abdominal pain and continuous contractions are absent whereas blood and blood clots trapped inside the retroplacental pouch are plenty (700cc). This asymptomatic placental abruption can occur because the patient has high threshold of pain. This uterus cauvelair can cause hypotonia uteri and there was a probability of postpartum hemorrhages to be worried. However, in this patient, uterus contractions are quite good. The results of laboratory examination at the time when patient come to the ED until post operation shows 4,5g/dl haemoglobin decreases, from 12,3 g/dl until 8,8 g/dl. This haemoglobin decrease are suitable with the patient's placental abruption occurred at the patient's arrival to ED until caesarean section was performed.^{8,10}

CONCLUSIONS

Placental abruption with typical symptoms such as vaginal bleeding, abdominal pain, and fetal distress are relatively easier to diagnosed, so that the management are quicker. If placental abruption occurs with no abdominal pain, it needs sharp observation so that the case wouldn't worsen and increases maternal morbidity and mortality.

ACKNOWLEDGEMENT

None

AUTHORS CONTRIBUTION

All authors contributed to this article

FUNDING

This case report does not funded by any institution.

1

CONFLICT OF INTEREST

The authors declared no conflict of interest related to this article

REFERENCES

1. Brandt JS, Ananth C V. Placental abruption at near-term and term gestations: pathophysiology, epidemiology, diagnosis, and management. Vol. 228, American Journal of Obstetrics and Gynecology. Elsevier Inc.; 2023. p. S1313–29.
2. Baczkowska M, Kosińska-Kaczyńska K, Zgliczyńska M, Brawura-Biskupski-samaha R, Rebizant B, Ciebiera M. Epidemiology, Risk Factors, and Perinatal Outcomes of Placental Abruption—Detailed Annual Data and Clinical Perspectives from Polish Tertiary Center. *Int J Environ Res Public Health.* 2022 May 1;19(9).
3. de Moreuil C, Hannigsberg J, Chauvet J, Remoue A, Tremouilhac C, Merviel P, et al. Factors associated with poor fetal outcome in placental abruption. *Pregnancy Hypertens.* 2021 Mar 1;23:59–65.
4. Hapdijaya I, Tessalina E, Herdiana EMN, Natalia J, Brata GASD, Andrianto H, et al. Placental Abruption as a Complication of Preeclampsia that Causes Fetal Distress. *Medical Clinical Update.* 2022 Oct 17;1(1):36–8.
5. Qiu Y, Wu L, Xiao Y, Zhang X. Clinical analysis and classification of placental abruption. *Journal of Maternal-Fetal and Neonatal Medicine.* 2021;34(18):2952–6.
6. Akadri A, Ogunsowo K, Odelola O. Abruptio Placenta: A retrospective analysis in a tertiary hospital, Sagamu, Nigeria. *Trop J Obstet Gynaecol.* 2018;35(2):142.
7. Schur E, Baumfeld Y, Rotem R, Weintraub AY, Pariente G. Placental abruption: assessing trends in risk factors over time. *Arch Gynecol Obstet.* 2022 Nov 1;306(5):1547–54.
8. Wulandari IA, Kebidanan A, Makassar P. Hubungan Paritas Ibu (Primipara Dan Multipara) Terhadap Kejadian Solusio Plasenta Di RSUD Syekh Yusuf Gowa Tahun 2018. Vol. 2, *Jurnal Kesehatan Delima Pelamonia.* 2018.
9. Sherer DM, Kheyman M, Benayoun J, Dalloul M. Incidental sonographic finding of a concealed placental abruption leading to delivery at 37 weeks' gestation. *Journal of Clinical Ultrasound.* 2021 Jul 1;49(6):630–1.

10. Li Y, Tian Y, Liu N, Chen Y, Wu F. Analysis of 62 placental abruption cases: Risk factors and clinical outcomes. *Taiwan J Obstet Gynecol*. 2019 Mar 1;58(2):223–6.

Kejadian solusio plasenta tanpa rasa nyeri dengan perdarahan retroplasenta 80% : laporan kasus

ORIGINALITY REPORT



PRIMARY SOURCES

1	www.accscience.com Internet Source	1 %
2	Submitted to University of Southampton Student Paper	1 %
3	repository.poltekkes-denpasar.ac.id Internet Source	1 %
4	www.coursehero.com Internet Source	1 %

Exclude quotes On

Exclude bibliography On

Exclude matches < 10 words