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**LEMBAR**  
**HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW**  
**KARYA ILMIAH : JURNAL ILMIAH**

Judul Karya Ilmiah (Artikel) : Prognostic significance of double expressor lymphoma subtype in patient with diffuse large b-cell lymphoma

Penulis : 7 Orang

Status Pengusul : Hermawan Istiadi1\* , Udadi Sadhana1 , Dik Puspasari2 , Ika Pawitra Miranti1 , Vega Karlowee1 , Devia Eka Listiana2 , **Awal Prasetyo1**

Identitas Jurnal Ilmiah : a. Nama Jurnal : Bali Medical Journal  
 b. Nomor ISSN : P-ISSN.2089-1180, E-ISSN: 2302-2914  
 c. Vol, Nomor, halaman : 10 (1), Pages 366 - 372  
 d. Edisi : April 2021  
 e. Penerbit : Sanglah General Hospital  
 f. Jumlah halaman : 7  
 g. DOI artikel (jika ada) : <https://doi.org/10.15562/bmj.v10i1.2188>  
 h. Alamat web jurnal : <https://www.balimedicaljournal.org/index.php/bmj/article/viewFile/2188/pdf>  
 i. Terindeks di : Scopus, SJR 0,12 .  
 j. On line turnitin : [https://doc-pak.undip.ac.id/9473/7/TURNITIN\\_Prognostic\\_significance.pdf](https://doc-pak.undip.ac.id/9473/7/TURNITIN_Prognostic_significance.pdf)

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 (beri ✓ pada kategori yang tepat)  Jurnal Ilmiah Nasional Terakreditasi  
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b. Ruang lingkup dan kedalaman pembahasan (30%)	9			8
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9			8
d. Kelengkapan unsur dan kualitas terbitan/ jurnal (30%)	9			8,7
<b>Total = (100%)</b>	<b>30</b>			<b>27,4</b>
<b>Nilai Pengusul =</b>				<b>40% x 27,4/6 = 1,83</b>

Catatan penilaian Artikel oleh Reviewer :

- Kelengkapan unsur isi artikel : Unsur isi artikel cukup lengkap, abstrak terstruktur dengan cukup baik
- Ruang lingkup dan kedalaman pembahasan : Ruang lingkup sesuai bidang ilmu pengusul dan kedalaman pembahasan cukup baik dengan jumlah referensi cukup
- Kecukupan dan kemutakhiran data/informasi dan metodologi: Penelitian observasional dengan metode retrospective cohort study yang diselenggarakan dengan metode penelitian yang terstandar dengan baik. Jumlah sampel memadai mengingat kasusnya yang jarang
- Kelengkapan unsur dan kualitas terbitan/ jurnal: Jurnal internasional Bereputasi, belum terindex Scopus, SJR 0,0

Semarang,  
 Reviewer 1



Prof. Dr. dr. Tri Nur Kristina, DMM, M.Kes  
 NIP. 19590527 198603 2 001  
 Bidang kerja : Fakultas Kedokteran Undip  
 Unit ilmu : Ilmu Kedokteran  
 Jabatan pangkat : Guru Besar

**LEMBAR  
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d. Kelengkapan unsur dan kualitas terbitan/ jurnal (30%)	9			5,8
<b>Total = (100%)</b>	30			20,3
<b>Nilai Pengusul =</b>	$40\% \times 20,3 / 6 = 1,35$			

Catatan penilaian Artikel oleh Reviewer :

- a. Kelengkapan unsur isi artikel : abstrak kurang lengkap tidak disebutkan desain penelitian. Sistematika lengkap sesuai kaidah penulisan ilmiah, pendahuluan dijelaskan mengenai manfaat dan tujuan penelitian, disebutkan ijin penelitian dari KEPK FK Undip/RSDK, Hasil dan pembahasan didukung pustaka baru yang relevan (hanya 0,64 % > 10 tahun)
- b. Ruang lingkup dan kedalaman pembahasan : ruang lingkup penelitian sesuai dengan bidang pengusul Bagian Patologi anatomi. Penelitian dengan tujuan ini penting dilakukan, karena meningkatnya prevalensi limfoma saat ini. Pembahasan mendalam dibandingkan dengan penelitian terdahulu dg mensiasi Pustaka yang baru dan relevan
- c. Kecukupan dan kemutahiran data/informasi dan metodologi: penelitian ini merupakan studi observasional analitik dengan desain cohort retrospektif . Penilaian subjek memakai cara terstandar dengan analisis statistik menggunakan chi-square
- d. Kelengkapan unsur dan kualitas terbitan/ jurnal: Bali Medical Journal, merupakan jurnal Internasional terindeks Scopus, SJR 0, Penerbit : Sanglah General Hospital

Semarang, 15 November 2022

Reviewer 2

Prof. Dr. drg. Oedijani, MS

Bidang kerja : Fakultas Kedokteran Undip

Unit ilmu : Ilmu Kedokteran

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(Available online : 1 April 2021)

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Study of neutrophil-lymphocyte ratio (NLR) in recent onset type 2 diabetes mellitus

Sharmila Dudani Sanjiti Poodury Sridhar Mangalesh

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The correlation between C-Reactive Protein, Vascular Cell Adhesion Molecule-1, and S100b with Alberta stroke program early CT Score in non-hemorrhagic stroke patients

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Hba1c levels correlated to lipoprotein-associated phospholipase A2 and monocyte HDL ratio in type 2 diabetes mellitus

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## Study of neutrophil-lymphocyte ratio (NLR) in recent onset type 2 diabetes mellitus



Sharmila Dudani\*, Sanjiti Poodury, Sridhar Mangalesh

### ABSTRACT

**Introduction:** The prevalence of type 2 diabetes mellitus (T2DM) is increasing steadily, assuming an epidemic proportion throughout the world. Most of this increased burden will come from developing countries. Studies show an increasing role of inflammation in the pathophysiology of diabetes. Estimation of neutrophil-lymphocyte ratio (NLR) could be a simple, inexpensive marker to stratify at-risk diabetes patients. This study aimed to estimate the NLR and CRP levels as a measure of systemic inflammation in diabetics compared to healthy controls. We also investigated if NLR was lower in diabetics with good glycemic control.

**Methods:** A cross-sectional comparative study, conducted in a tertiary hospital on 60 patients with T2DM and 69 healthy controls after voluntary informed consent. Anthropometric parameters, fasting plasma glucose, Lipid profile, CBC, CRP, and HbA1c were measured for all participants.

**Results:** The diabetic group showed significantly higher waist circumference ( $p=0.007$ ) mean TG ( $p=0.003$ ), VLDL-c ( $p=0.001$ ), LDL-c ( $p=0.010$ ), TG/HDL-c ( $p=0.001$ ), HbA1c ( $p=0.00001$ ), MPV ( $p=0.002$ ), NLR ( $p=0.006$ ), and CRP ( $p=0.004$ ) values and lower HDL-c values ( $p=0.039$ ) as compared to the control group. No significant difference was seen in BMI, Waist-Hip ratio, total cholesterol, and total cholesterol/HDL-c values between the two groups. Among the diabetics, only HDL-c ( $p=0.018$ ) and TG/HDL-c ratio ( $p=0.049$ ) differed significantly with glycemic control.

**Conclusion:** Diabetics had higher inflammatory markers (NLR, CRP) as compared to controls. Dyslipidemia (high TG, low HDL-c with high TG/HDL-c) and a higher waist circumference were seen in diabetics. Diabetics with fair control of glycemia (HbA1c < 7%) did not demonstrate lower NLR levels indicating that meticulous glycemic control may not ameliorate the chronic inflammation seen in diabetics until dyslipidemia is corrected.

**Keywords:** Diabetes Mellitus, Dyslipidemias, Inflammation, HbA1c

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### INTRODUCTION

The prevalence of Type 2 Diabetes Mellitus (T2DM) assumes epidemic proportions, both in developed and developing countries worldwide. The estimates suggest that approximately 440 million adults or nearly 8% of the global population would be affected by T2DM by 2030. Almost 70% of this predicted increase in numbers is believed to be in developing countries like India.<sup>1,2</sup> Metabolic syndrome is a condition associated with a series of risk factors that predict many chronic diseases, including diabetes mellitus, obesity, and cardiovascular disease. The risk factors for metabolic syndrome are dyslipidemia, including high plasma triglycerides (TG), low levels of high-density lipoprotein

cholesterol (HDL-c), and fasting hyperglycemia, and central obesity.<sup>3</sup>

It is increasingly believed that oxidative stress and inflammation are the common denominators linking the pathogenesis of obesity, insulin resistance, and T2DM. The rise in the prevalence of obesity and metabolic syndrome runs parallel with an increased incidence of T2DM.<sup>4</sup> It is thought that the chronic low-grade inflammation initially develops as an adaptive protective response to help ward off infections and permit tissue repair.<sup>5</sup> As body weight increases with age and obesity is established, a parallel state of low-grade chronic inflammation, characterized by an overproduction of proinflammatory cytokines like TNF $\alpha$ , IL-6, CRP, PAI-1 sets in, which induce

molecular changes and switch metabolic endpoints of insulin sensitivity leading to T2DM.<sup>4</sup> This inflammation is associated with increased cardiometabolic risk, and atherosclerosis.<sup>6,7</sup>

Studies have established a relationship between leukocytosis and the pathogenesis of atherosclerosis and metabolic syndrome.<sup>8,9</sup> A high total WBC count shows a positive correlation with inflammation in cardiovascular diseases, but as its stability is influenced by physical, physiological, and pathological factors, it serves as a crude measure of the inflammatory status. Neutrophil to lymphocyte ratio (NLR) has been recently discovered as a novel and stable inflammatory marker reflecting the inflammatory status, superior to other individual leukocyte



## Mean pulmonary artery diameter in chest CT scan in the Thai population



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### ABSTRACT

**Introduction:** Pulmonary hypertension has been associated with a significant increase in morbidity and mortality. The pulmonary artery diameter measurement from a CT scan is routinely used to predict possible evidence of pulmonary hypertension. However, no data available as a reference for the normal range, especially in the Thai Population. The primary purpose of this study was to determine the normal diameter of the main pulmonary artery (MPA) and ascending aorta (AAo) and the ratio between MPA and AAo diameter in the Thai population.

**Methods:** Patients who met the inclusion criteria and had a chest CT performed in Songklanagarind hospital between 1 January 2014 and 14 July 2014 were enrolled. Measurement of the MPA diameter at the level of its bifurcation and the AAo from an axial-view contrast-enhanced CT chest (venous phase) image was done. The ratio between the diameter of MPA and AAo was then calculated.

**Results:** 2395 patients were included in this study (male = 1271 patients, female = 1124 patients, aged between 20-96 years; mean = 57 years old). The mean diameter of the MPA was 25.21 mm, and the mean diameter of the AAo was 30.78 mm. The mean MPA/ AAo ratio was 0.83. The sex-specific mean diameters of the MPA were 25.4 mm in men and 25.0 mm in women. The mean diameters of the AAo in men and women were 31 mm and 30 mm, respectively.

**Conclusion:** The mean MPA diameter obtained from chest CT scans in this study was about 25.4 mm in men and 25.0 mm in women. These values are easily obtained from chest CT scans and are highly reproducible. Therefore, it may be used as a reference value for a healthy Thai population.

**Keywords:** Pulmonary artery, diameter, Thai population.

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### INTRODUCTION

Pulmonary hypertension has been associated with a significant increase in morbidity and mortality.<sup>1</sup> It is involved in many clinical conditions and can complicate many cardiovascular and respiratory diseases.<sup>2</sup>

Pulmonary hypertension is caused by several diseases, including long-standing cardiac left-to-right shunts due to congenital anomalies, chronic thromboembolic pulmonary diseases, tumour emboli, parasitic emboli, talc crystals and other foreign material deposits, human immunodeficiency virus (HIV), liver diseases, pulmonary vasculitis, chronic alveolar hypoxia due to chronic obstructive pulmonary disease, and chronic interstitial lung

disease.<sup>3</sup> Many factors may affect the main pulmonary artery diameter such as sex, age, and underlying disease.<sup>3,4</sup> An enlarged main pulmonary artery (MPA) is strongly related to pulmonary hypertension as a result of adaptation to the increased pulmonary pressure and vascular resistance.<sup>1,5</sup>

The gold standard for diagnosing pulmonary hypertension is catheterization of the right side of the heart, but it is an invasive procedure and carries risks of morbidity and mortality. Other diagnostic methods include electrocardiography, chest radiography, pulmonary function tests and arterial blood gas, echocardiography, ventilation/perfusion lung scans, high-resolution computed tomography(HRCT)/contrast-enhanced computed tomography (CT), pulmonary

angiography, cardiac magnetic resonance imaging (MRI), blood and immunology tests, abdominal ultrasonography, and genetic testing.<sup>6,7,8,9,10,11</sup> Several studies have shown that CT is an effective non-invasive method of predicting the presence of pulmonary hypertension by evaluating the relationship between pulmonary artery diameter and pulmonary hypertension.<sup>1,4,12</sup>

The pulmonary artery diameter measurement from a CT scan is routinely used to predict possible evidence of pulmonary hypertension.<sup>1,5,12</sup> However, to date, no study has been performed to determine the normal range of the MPA diameter in the Thai population. This study aimed to determine the normal diameter of the MPA, AAo, as well as the ratio between the diameter of the MPA