

POLITEKNIK KESEHATAN KEMENKES TANJUNGPUR
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**HUBUNGAN INDEKS ERITROSIT DAN RED BLOOD CELL
DISTRIBUTION WIDTH (RDW) DENGAN KADAR T3 DAN T4 PADA
PENDERITA DISFUNGSI TIROID DI RS HANDAYANI LAMPUNG
UTARA**

xv + 34 halaman, 10 tabel, 5 gambar, 13 lampiran

ABSTRAK

Disfungsi tiroid merupakan gangguan pada kelenjar tiroid yang menyebabkan ketidakseimbangan kadar hormon T3 dan T4 dapat berupa hipertiroidisme atau hipotiroidisme, yang dapat memengaruhi proses eritropoiesis dan parameter hematologi seperti indeks eritrosit (MCV, MCH, MCHC) serta *Red Blood Cell Distribution Width (RDW)*. Penelitian ini bertujuan untuk mengetahui hubungan antara indeks eritrosit dan RDW dengan kadar T3 dan T4 pada penderita disfungsi tiroid di RS Handayani Lampung Utara. Penelitian ini menggunakan desain *cross-sectional* dan dilaksanakan Mei 2025. Sampel penelitian berjumlah 32 pasien yang mengalami disfungsi tiroid sebagian besar berusia 18–59 tahun sebanyak 21 orang (65,6%) berjenis kelamin perempuan 19 orang (59,4%) dan mayoritas hipertiroidisme 20 orang (62,5%). Analisis data menggunakan uji *Spearman* MCV dengan T3 ($p\text{-value} = 0,372$) dan T4 ($p\text{-value} = 0,538$), sedangkan koefisien korelasi MCV dengan T3 ($r = -0,163$) dan T4 ($r = 0,113$), yang menunjukkan bahwa kekuatan dan signifikansi hubungan antar variabel sangat lemah dan tidak signifikan. Dengan demikian, tidak ditemukan hubungan yang bermakna secara statistik antara indeks eritrosit (MCV, MCH, MCHC) dan *Red Blood Cell Distribution Width (RDW)* dengan hormon T3 dan T4 pada pasien disfungsi tiroid di RS Handayani Lampung Utara.

Kata Kunci: Disfungsi Tiroid, Indeks Eritrosit, RDW, T3, T4.
Daftar Bacaan: 42 (2002-2025)

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**RELATIONSHIP BETWEEN ERYTHROCYTE INDEX AND RED BLOOD
CELL DISTRIBUTION WIDTH (RDW) WITH T3 AND T4 LEVELS IN
PATIENTS WITH THYROID DYSFUNCTION AT HANDAYANI
HOSPITAL, NORTH LAMPUNG**

xv + 34 pages, 10 tables, 5 figures, 13 appendices

ABSTRACT

Thyroid dysfunction is a disorder of the thyroid gland that causes an imbalance in T3 and T4 hormone levels, which can be in the form of hyperthyroidism or hypothyroidism, which can affect the erythropoiesis process and hematological parameters such as erythrocyte indices (MCV, MCH, MCHC) and Red Blood Cell Distribution Width (RDW). This study aims to determine the relationship between erythrocyte indices and RDW with T3 and T4 levels in patients with thyroid dysfunction at Handayani Hospital, North Lampung. This study used a cross-sectional design and was conducted in May 2025. The study sample consisted of 32 patients with thyroid dysfunction, most of whom were 18–59 years old, 21 people (65.6%) were female, 19 people (59.4%) and the majority had hyperthyroidism, 20 people (62.5%). Data analysis using Spearman MCV test with T3 (p-value = 0.372) and T4 (p-value = 0.538), while the correlation coefficient of MCV with T3 (r = -0.163) and T4 (r = -0.113), which indicates that the strength and significance of the relationship between variables are very weak and insignificant. Thus, no statistically significant relationship was found between erythrocyte indices (MCV, MCH, MCHC) and Red Blood Cell Distribution Width (RDW) with T3 and T4 hormones in thyroid dysfunction patients at Handayani Hospital, North Lampung.

Keywords: Thyroid Dysfunction, Erythrocyte Indices, RDW, T3, T4.

Reading List: 42 (2002-2025)