

## INTISARI

Penderita talasemia beta mayor mengalami gangguan sintesis rantai globin sehingga tubuh terus mengalami anemia dan memicu proses eritropoiesis tidak efektif. Hal ini menyebabkan hiperplasia sumsum tulang yang mengakibatkan kelainan tulang kraniofasial. Tujuan penelitian adalah untuk mendapatkan profil dahi dan rahang atas anak talasemia beta mayor suku Jawa.

Jenis penelitian observasional dengan rancangan *cross sectional*. Subjek penelitian yaitu 35 anak talasemia beta mayor di RSUP. Prof. dr. Sardjito dan 97 anak normal sebagai pembanding yang memenuhi kriteria inklusi. Kedua kelompok dibagi dalam 3 kategori usia (7-9, 10-12, dan 13-15 tahun). Foto profil diukur dengan fotogrametri. Profil dahi ditinjau dari sudut tonjol dahi dan jarak tonjol dahi, sedangkan rahang atas dengan sudut nasolabial dan jarak bibir atas ke garis E. Hasil foto diolah dengan *Adobe Photoshop* dan *CorelDRAW 2021*. Data dianalisa dengan SPSS. Setiap individu anak talasemia beta mayor dibandingkan dengan nilai anak normal.

Hasil penelitian menunjukkan persentase terbesar sudut tonjol tulang dahi dan nasolabial pada kategori usia 7-9 tahun (kelompok 1 dan 2), sedangkan pada usia lainnya semakin banyak pada kelompok yang mendekati mean. Tidak ada tren kenaikan atau penurunan hasil pengukuran jarak tonjol dahi dan bibir atas ke garis E.

Kesimpulan penelitian ini yaitu profil tulang dahi dan rahang atas anak suku Jawa penderita talasemia beta mayor menunjukkan kecenderungan maju terutama pada usia 7-9 tahun (>70% sampel berada pada kelompok  $\leq -2$  SD). Kategori usia selanjutnya cenderung berada pada kelompok SD yang mendekati nilai mean. Tidak terlihat kecenderungan maju pada pengukuran jarak tonjol dahi dan bibir atas ke garis E.

**Kata kunci :** Talasemia beta mayor, Profil dahi, Profil rahang atas.

### **ABSTRACT**

*Beta thalassemia major patients experience impaired globin chain synthesis that causes ineffective erythropoiesis and trigger bone marrow hyperplasia, resulting in craniofacial bone abnormalities. The aim of the study was to obtain the profile of the forehead and maxilla of Javanese beta thalassemia major children.*

*This was an observational study with a cross sectional design in 35 beta thalassemia major children at RSUP. Prof. dr. Sardjito and 97 normal children as comparisons. All were divided into 3 categories (7-9, 10-12, and 13-15 years old). Profile photos are measured by photogrammetry. The forehead and maxilla profile photos were examined using photogrammetry and processed with Adobe Photoshop and CorelDRAW 2021. The angle and distance of forehead protrusion, also the nasolabial angle and the distance of upper lip to E line were measured. The statistical analysis was conducted with the SPSS, comparing the beta thalassemia major children data to the normal one.*

*The results showed that the highest percentage of forehead and nasolabial angles in the 7-9 years were found in the group 1 and 2 in both sexes, and getting closer to the mean in the older age groups. There was no significant trend of increasing or decreasing distance between the forehead protrusion and upper lip to the E line.*

*The conclusion of this study was that the profile of the forehead and maxillary bones of Javanese children with thalassemia beta major showed a tendency to protrusive, especially in the 7-9 years age group. The SD in older age group tends to be closer to the mean value. There was no significant trend forward in measuring the distance between the forehead and upper lip to the E line.*

**Keywords:** *Beta thalassemia major, Forehead profile, Maxillary profile.*