

## INTISARI

**Latar Belakang :** Melasma, adalah kondisi hiperpigmentasi dapatan, paling sering terjadi pada wajah. Etiologi pasti melasma belum jelas berbagai faktor terkait dengan perkembangan melasma yaitu radiasi sinar UV, kehamilan, aktivitas hormonal, kelainan tiroid, dan obat-obatan. Beberapa parameter serum seperti zink, zat besi, coper dan magnesium dikaitkan dengan lesi kulit dan melasma, namun hubungannya masih diragukan. Hubungan kadar profil besi dengan derajat keparahan melasma menarik diteliti karena etiologi pasti penyebab melasma belum ditemukan sehingga mencari faktor penyebab akan meningkatkan pemahaman tentang melasma.

**Tujuan :** Untuk mengetahui hubungan kadar hemoglobin, zat besi, ferritin dan TIBC dengan derajat keparahan melasma di Yogyakarta.

**Metode :** Penelitian ini dilakukan menggunakan rancangan studi potong lintang dengan pendekatan korelasional. Diagnosis melasma ditegakkan dengan pemeriksaan fisik serta penilaian skor MASI. Subjek penelitian yang memenuhi kriteria inklusi dan eksklusi akan diambil sampel dari darah tepi untuk dilakukan pemeriksaan kadar hemoglobin, zat besi, ferritin dan TIBC. Data diolah menggunakan analisis statistik Pearson untuk analisis korelasi. Hasil dinyatakan bermakna secara statistik jika  $p \leq 0,05$ .

**Hasil :** Jumlah subjek penelitian adalah 31 orang dengan rerata usia  $38,87 \pm 4,87$  tahun. Tidak terdapat hubungan yang signifikan antara kadar hemoglobin ( $r=0,211$ ,  $p=0,255$ ), zat besi serum ( $r=0,240$ ,  $p=0,194$ ), ferritin ( $r=0,125$ ,  $p=0,502$ ), dan TIBC ( $r=-0,183$ ,  $p=0,324$ ) dengan derajat keparahan melasma.

**Kesimpulan :** Tidak terdapat hubungan kadar hemoglobin, zat besi serum, ferritin dan TIBC dengan derajat keparahan melasma menggunakan skor MASI

**Kata kunci :** melasma, hemoglobin, zat besi, ferritin, TIBC, skor MASI

## ABSTRACT

**Background :** Melasma is acquired hyperpigmentation condition, most commonly occurs on the face. Many factors are associated with the development of melasma, including UV radiation, pregnancy, hormonal activity, thyroid disorders, and medication. Several serum parameters such as zinc, iron, copper, and magnesium are associated with skin lesion and melasma, but the relationship is still doubtful. The relationship between the iron profile and the severity of melasma is interesting to study because the exact etiology of melasma has not been found, looking for risk factor will increased understanding of melasma.

**Objective :** To determine the relationship between hemoglobin, iron serum, ferritin, TIBC levels and melasma area severity index in Yogyakarta

**Methods :** This research was conducted using a cross-sectional study design with a correlation approach. Diagnosis of melasma is confirmed physical examination and assessment of MASI score. Subject who meet inclusion and exclusion criteria will included and take the blood sample from peripheral blood to measure levels of hemoglobin, iron, ferritin and TIBC. Data will processed using Pearson test for correlation analysis. Result to be statistically significant if  $p \leq 0,05$ .

**Result :** This research included 31 subjects with mean age of  $38,87 \pm 4,87$  years old. There was no significant relationship between hemoglobin levels ( $r=0,211$ ,  $p=0,255$ ), serum iron ( $r=0,240$ ,  $p=0,194$ ), ferritin ( $r=0,125$ ,  $p=0,502$ ), and TIBC ( $r=-0,183$ ,  $p=0,324$ ) with the severity of melasma

**Conclusion :** There is no relationship between hemoglobin, serum iron, ferritin, and TIBC levels with the severity of melasma using MASI score.

**Keywords :** *melasma, hemoglobin, iron, ferritin, TIBC, MASI score*