

INTISARI

Latar belakang

Penderita keganasan hematologi seringkali mengalami kondisi trombositopenia sebagai bagian dari perjalanan penyakit maupun akibat komplikasi dari terapi yang dijalannya, hingga membutuhkan transfusi trombosit. Transfusi tromboferesis adalah tindakan invasif yang memiliki efek baik dan buruk pada pasien karena dapat berisiko terbentuknya alloantibodi dan penularan penyakit lewat transfusi darah, sehingga evaluasi pasca transfusi perlu dilakukan untuk menghindari transfusi berlebihan. Penilaian keberhasilan transfusi trombosit dapat diukur dengan menghitung *corrected count increment* (CCI) atau menggunakan *percentage platelet recovery* (PPR) jika data pasien tidak lengkap mengenai tinggi badan. Penetapan perhitungan yang digunakan sebagai indikator keberhasilan transfusi masih bervariasi.

Tujuan

Mengevaluasi kesesuaian antara *percentage platelet recovery* dan *corrected count increment* dalam menilai keberhasilan transfusi tromboferesis pada pasien keganasan hematologi.

Metode

Penelitian ini merupakan penelitian observasional potong lintang yang melibatkan 42 subjek penelitian dengan kriteria pasien dewasa keganasan hematologi yang dirawat inap dan menerima transfusi tromboferesis. Nilai CCI dan PPR dihitung 1 jam pasca transfusi tromboferesis. Transfusi tromboferesis dinilai berhasil jika $CCI \geq 7500$ atau $PPR \geq 30\%$. Penilaian kesesuaian ditetapkan dengan menggunakan *Cohen's Kappa*.

Hasil

Pada penelitian terdapat 42 subjek penelitian keganasan hematologi dengan diagnosis sebagai berikut AML 18 pasien, ALL 6 pasien, CML 8 pasien, MDS 7 pasien, MM 2 pasien, dan *Mixed leukemia* 1 pasien. Proporsi keberhasilan transfusi tromboferesis berdasarkan $CCI \geq 7500$ dan $PPR \geq 30\%$ secara berturut-turut 61,9% dan 42,9%. Uji beda keberhasilan transfusi berdasarkan CCI dan PPR tidak ada perbedaan signifikan ($p > 0,05$). Uji *Cohen's Kappa* antara CCI dan PPR didapatkan nilai Kappa sebesar 0,631.

Kesimpulan

Terdapat kesesuaian substansial antara *percentage platelet recovery* dan *corrected count increment* dalam menilai keberhasilan transfusi tromboferesis pada pasien keganasan hematologi.

Kata Kunci: tromboferesis, CCI, PPR, Kappa

ABSTRACT

Background

Patients with hematological malignancies often experience thrombocytopenia as part of the course of the disease or as a result of complications from the therapy they are undergoing, thus requiring platelet transfusions. Thrombopheresis transfusion is an invasive procedure that has both good and bad effects on the patient because of the risk of alloantibody formation and transfusion-transmitted infection. Post transfusion evaluation needs to be done to avoid excessive transfusion. Assessment of the success of platelet transfusion can be measured by calculating the corrected count increment (CCI) or using the percentage platelet recovery (PPR) if the patient body height data is incomplete. Determination of the calculation that are used as an indicator of successful transfusion is still varied.

Aim

To evaluate the concordance between the percentage platelet recovery and corrected count increment in assessing the thrombopheresis transfusion outcome in patients with hematological malignancies.

Methods

This study is an analytic observational study with a cross-sectional involving 42 subjects were adult patients with hematological malignancies who were hospitalized and received thrombopheresis transfusions. CCI and PPR values were calculated 1 hour after transfusion thrombopheresis. Thrombopheresis transfusion was considered successful if $CCI \geq 7500$ or $PPR > 30\%$. Concordance analysis was performed using Cohen's Kappa formula.

Results

In this study, 42 subjects of hematological malignancy with the following diagnosis: 18 patients AML, 6 patients ALL, 8 patients CML, 7 patients MDS, 2 patients MM, and 1 patient Mixed leukemia. Proportion of successful transfusion thrombopheresis based on $CCI \geq 7500$ and $PPR > 30\%$, respectively, 61.9% and 42.9%. There was no significant difference in the different test of transfusion success based on CCI and PPR ($p > 0.05$). Cohen's Kappa test between CCI and PPR obtained a Kappa value of 0.631.

Conclusion

There is substantial agreement between percentage platelet recovery and corrected count increment in assessing the success of transfusion thrombopheresis in patients with hematological malignancies.

Keywords: thrombopheresis, CCI, PPR, Kappa