INTISARI

Latar Belakang: Ekspresi CD62P ,penanda aktivasi trombosit, dapat memprediksi kualitas dari suatu trombosit konsentrat. Sementara itu keberadaan lekosit kontaminan dapat mengubah kualitas suatu trombosit konsentrat dalam penyimpanannya. Salah satu upaya untuk mengurangi keberadaan lekosit kontaminan tersebut adalah dengan metode lekodeplesi. Beberapa penelitian menunjukkan lekodeplesi dapat menurunkan secara signifikan aktivasi platelet yang prematur disimpulkan melalui penurunan penanda CD62P secara *in vitro*. Namun penelitian secara *in vivo* tentang apakah terdapat perbedaan eskpresi CD62P lekodeplesi dan non-lekodeplesi masih diragukan dan belum banyak diteliti.

Tujuan: Mengetahui apakah terdapat perbedaan aktivasi trombosit konsentrat lekodeplesi dan non-lekodeplesi melalui penanda CD62P *in vivo*.

Metode: Penelitian ini merupakan penelitian sekunder yang mengambil data ekspresi CD62P pre-transfusi dan pasca-transfusi secara lekodeplesi dan non-lekodeplesi pada *logbook* dari penelitian utama yang berjudul "Efikasi dan Risiko Transfusi Trombosit". Kemudian data CD62P pre-transfusi dan pasca-transfusi tersebut diolah dan dianalisa menggunakan software statistik SPSS.

Hasil: Rerata ekspresi CD62P untuk pasca-transfusi (60 menit) lekodeplesi adalah 24,22±7,60% (n=24) sedangkan non-lekodeplesi 27,73±8,41% (n=24). Pada penelitian ini juga diperoleh perbedaan signifikan ΔCD62P *in vivo* antara transfusi trombosit dibandingkan dengan transfusi trombosit non-lekodeplesi ($p<0,05$).

Simpulan: Berdasarkan penelitian ini, disimpulkan terdapat perbedaan signifikan untuk ΔCD62P *in vivo* lekodeplesi dan non-lekodeplesi pada transfusi trombosit.

Kata Kunci: Trombosit konsentrat. Non-lekodeplesi. Lekodeplesi. Aktivasi trombosit. CD62P *in vivo*.

ABSTRACT

Background:
Expression of CD62P,known as a marker of thrombocyte activation (TC), could be used as a quality predictor of thrombocyte concentrate. Meanwhile the leukocyte contaminant in thrombocyte concentrate could change the quality of the thrombocyte in storage. One of the effort to reduce the presence of leukocyte contaminant is leukodepletion method. Some studies founded that leukodepletion could significant reduce early thrombocyte activation as result of lower CD62P expression in *in vitro* setting. However whether the leukodepletion still could reduce the activation in *in vivo* setting still doubted and not reported well.
Objective: to know whether there were the differences between leukodepletion and non-leukodepletion toward thrombocyte activation through expression of CD62P marker in *in vivo* setting.
Method: This research is secondary research that use pre-transfusion and pasca transfusion CD62P data from the main research which titled "Efikasi dan Risiko Trombosit". The data of CD62P protein expression both pre and post transfusion using leucodepletion or non-leucodepletion are collected and analyzed by SPSS statistic software.
Result: Average expression of CD62P post transfusion (60 minutes) for leukodepletion was 24,22±7,60% (n=24) while non leukodepletion was 27,73±8,41% (n=24). This research found that there is no significant differences of CD62P post transfusion but significant differences for ΔCD62P *in vivo* between leukodepletion and non-leukodepletion thrombocyte transfusion ($p<0,05$).
Conclusion: Based on this research, it can be concluded that there was a significant differences between average of ΔCD62P expression leukodepletion and non-leukodepletion in thrombocyte transfusion.
Keyword: Thrombocyte Concentrate. Activation of Thrombocyte. Leucodepletion. CD62P *in vivo*.