

Variasi Rhesus DEL pada Populasi Rhesus Negatif Indonesia dengan Metode Adsorpsi Elusi dan Single Specific Primer Polymerase Chain Reaction (SSP PCR) = Variation of Rhesus DEL Among Indonesian Rhesus Negative Population Using Adsorption-Elution Method and Single Specific Primer-PCR

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Abstrak

Antigen D pada donor darah wajib diketahui karena memiliki imunogenitas tinggi, bila terpapar pada individu Rhesus negatif dapat terbentuk aloantibodi kemudian misalnya pada wanita hamil menyebabkan Hemolytic Disease of Newborn (HDN). Di Indonesia sudah dapat mendeteksi weak D dengan dengan indirect antiglobulin test. Varian Rhesus DEL (D-eluate) terdeteksi dengan metode adsorpsi elusi dan metode Single Specific Primer-Polymerase Chain Reaction (SSP-PCR) sehingga dengan standar pemeriksaan di Indonesia belum terdeteksi dan terdata sebagai Rhesus negatif. Darah tersebut bila ditransfusikan ke pasien Rhesus negatif menimbulkan aloimunisasi pada pasien. Untuk itu penelitian ini bertujuan mengetahui adanya varian Rhesus DEL pada populasi Rhesus negatif Indonesia dengan metode adsorpsi elusi dan SSP-PCR. Metode penelitian ini deskripsi eksploratif untuk deteksi varian Rhesus DEL dengan metode adsorpsi elusi dan SSP-PCR terhadap 100 sampel dari populasi Rhesus negatif Indonesia. Hasil penelitian didapatkan varian Rhesus DEL pada 26 sampel dengan adsorpsi elusi dan 47 sampel dengan SSP-PCR. Uji diagnostik SSP-PCR sensitivitas 100%, spesifisitas 72%, nilai duga positif 55% dan nilai duga negatif 100%. Risiko etnis Cina 3 kali lebih tinggi dari etnis non-cina untuk memiliki varian Rhesus DEL. Kesimpulannya varian Rhesus DEL terdeteksi pada populasi Rhesus negatif Indonesia dan terdapat perbedaan kemampuan deteksi antara metode adsorpsi elusi dengan SSP-PCR.

.....D antigen in blood donors must be identified because it contains high immunogenicity, if exposed to Rhesus negative individuals, alloantibodies can be formed. For example, in pregnant women it can cause Hemolytic Disease of Newborn (HDN). In Indonesia, we have been able to detect weak D with the indirect antiglobulin test. Rhesus DEL (D-eluate) variant can be detected by elution adsorption method and Single Specific Primer – Polymerase Chain Reaction (SSP-PCR) method. Based on the current Indonesian detection standard, Rhesus DEL has not been detected and is recorded as Rhesus negative. If the blood is transfused into a Rhesus negative patient, it can cause alloimmunization in the patient. The purpose of this study was to determine the presence of Rhesus DEL variants in the Indonesian Rhesus negative population by elution adsorption and SSP-PCR methods. This research method is an exploratory description for the detection of Rhesus DEL variants by elution adsorption and SSP-PCR methods on 100 samples from the Indonesian Rhesus negative population. The results showed that the Rhesus DEL variant was found in 26 samples with elution adsorption and 47 samples with SSP-PCR. SSP-PCR diagnostic test sensitivity 100%, specificity 72%, positive predictive value 55% and negative predictive value 100%. The risk of ethnic Chinese is 3 times higher than that of non-Chinese for having the Rhesus DEL variant. In conclusion, the Rhesus DEL variant was detected in the Indonesian Rhesus negative population and there was a difference in detection ability between the elution adsorption method and SSP-PCR.