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【Overview presentation】

The appropriate sample-handling procedure for measuring the plasma β-amyloid level using a fully automated immunoassay

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Overview presentation	**Objectives** Plasma β-amyloid (Aβ) assays are a promising tool for Alzheimer's disease diagnosis in clinical practice. To obtain reliable results, establishing an appropriate sample-handling procedure for each analytical platform is warranted. This study proposes an appropriate sample-handling procedure using HISCL analyzer by elucidating the individual/combined effects of pre-analytical parameters on plasma Aβ42/Aβ40 levels. **Methods** We investigated the effects of various pre-analytical parameters, including storage times for whole blood, plasma, and freezing conditions, on plasma Aβ42/Aβ40 levels, and confirmed if these values met the acceptable criteria. **Results** Plasma Aβ42/Aβ40 levels were acceptable in all conditions. We determined our protocol by confirming that plasma Aβ42/Aβ40 levels remained acceptable when combining pre-analytical parameters. **Conclusion** We established an appropriate sample-handling protocol that ensures reliable measurement of plasma Aβ42/Aβ40 levels using HISCL analyzer. We believe the Aβ assay, with our protocol, shows promise for aiding AD diagnosis in clinical settings.
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