

O57 EXPERIENCE OF NEONATAL G6PD DEFICIENCY SCREENING PROGRAM IN TAIWAN

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Glucose-6-phosphate dehydrogenase (G6PD) deficiency is the most common enzymopathic disease in Taiwan. A quantitative fluorometric method to determine G6PD activity in dried blood spots collected on filter paper was developed in our laboratory to back up the qualitative fluorometric spot test for mass neonatal screening of G6PD deficiency. Seventeen G6PD referral centers connected with facsimile machine were established in local hospitals islandwide to follow up positive cases with confirmatory tests, medical care and genetic counseling. From November, 1984 to December, 1990, 425,906 heel blood samples collected from 387 delivery units were screened by one of the national neonatal screening center at Veterans General Hospital-Taipei. 12,655 cases with positive result were referred to referral centers immediately after screening. About 72% of the positive cases had confirmatory test and 65.1% of them were confirmed as G6PD deficiency. The incidence of G6PD deficiency is estimated to be around 2.0% (male 2.9%, female 0.9%) in Taiwan. Results indicated that neonatal G6PD screening is an effective screening program in Taiwan, the experience could be used as an example for other areas with high incidence of G6PD deficiency.