

CHANGES IN INCIDENCE AND SEX RATIO OF GLUCOSE-6-PHOSPHATE DEHYDROGENASE DEFICIENCY BY POPULATION DRIFT IN TAIWAN

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Abstract. We analyzed data from a single screening center in Taiwan from January 1, 1996 to December 31, 2005 to evaluate the change in incidence and female to male ratio of G6PD deficiency. During the study period, 1,211,632 of 2,667,922 (45.41%) neonates delivered in Taiwan were screened at the National Taiwan University Hospital. Of these, 21,997 neonates (1.82%) were confirmed to have G6PD deficiency. The annual incidence has decreased since 2002, from 1.94% to 1.61%. During this period, the male to female ratio in the screened population was 1.091 (range 1.073-1.098), the incidences in male and female neonates were 2.81% (2.57-3.07%), and 0.7% (0.45-0.95%), respectively. The change in sex ratio of the disease was unrelated to the change in incidence. During 2000-2005, 15-25% of newborns were born from newly immigrated females. G6PD deficiency screening has confirmed a subtle genetic flow in Taiwan. Besides the psychosocial effects, medical issues caused by population movements should be carefully watched in the future in Taiwan.

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