

**Abstract Form**

Closing Date: 30 April 1994

(do not fold)

**COMMON SOUTHERN CHINESE GLUCOSE-6-PHOSPHATE DEHYDROGENASE  
MUTATIONS IN SINGAPORE AND TAIWAN**TAN It Koon, CHIO Lee Foon, CHAN Meng Kwong and  
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Glucose-6-phosphate dehydrogenase (G6PD) deficiency is a common X-linked genetic disorder in Southeast Asia. Recently 6 nucleotide mutations have been reported to account for 80% to 90% of G6PD mutant alleles in Taiwan. A study was undertaken to find out the incidence of those common southern Chinese G6PD mutations in Singapore. Blood samples collected on filter paper, (Tokyo Roshi Kaisha Ltd, Tokyo) from 127 and 166 male G6PD deficient patients in Singapore and Taiwan respectively were tested. A non-radioactive method was used to detect the 6 common mutations. This involved the analysis of restriction fragments of DNA amplified directly from dried blood spot by polymerase chain reaction. Results of the study are summarised as follows:

Nucleotide Mutation	1388	1376	1024	493	487	95	Unknown
Singapore Hokkien	8	20	1	0	0	1	4
Cantonese	14	18	2	0	0	7	5
Hakka	1	6	1	0	0	1	0
Other dialect	3	6	0	0	0	0	2
Total Chinese (n=100)	26(26%)	50(50%)	4(4%)	0	0	9(9%)	11(11%)
Malay (n=25)	1	0	1	0	0	0	23
Indian (n=2)	0	0	0	0	0	0	2
Taiwan Hokkien	20	69	7	10	1	12	18
Cantonese	1	0	0	0	0	0	1
Hakka	4	6	1	2	0	3	6
Other dialect	1	0	1	1	0	1	1
Total Chinese (n=166)	26(16%)	75(45%)	9(5%)	13(8%)	1	16(10%)	26(16%)

Paper to be presented by: TAN It Koon

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28th Singapore-Malaysia

Congress of Medicine

4-7 Aug. 1994

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