

Chapter 5

Conclusion and Discussion

The purpose of this study was to measure the prevalence of twinning and investigate the factors associated with twin status and sex distribution of twins at Pattani Hospital among infants born in Pattani Hospital, and to develop a model for describing the risks of the several factors for twin status and sex distribution of infants. The samples were collected from labour chart records of mothers on 22,685 occasions including 221 twins and 22,464 singletons, from 1 October 1996 to 30 September 2005.

5.1 Summary of finding

The prevalence of twins was 9.7 per 1000 (95% CI: 8.4-11.0). Based on the fact that 186 (84.2%) of these pairs were of the same sex, the estimated proportion of identical twins was found to be 0.68 (95% CI: 0.59-0.78).

- (a) Mothers aged 30-34 years were more likely to have twin status than other age groups.
- (b) Muslim mothers had higher twin status than those in other religions.

5.2 Discussion

The prevalence of twins in Pattani hospital was higher than those in Vajira (Charernnan, 1990), Lerdsin (Lertkungwarnkai and Ramkiattisak, 1994) and Rayong (Sangpethsong, 1992) hospitals which were 6.1, 6.3 and 7.7 per 1000, respectively.

Our study found that the maternal age was significantly associated with twin status.

This result agrees with the studies conducted in Brazil, Japan, France, England, Wales,

Sweden, Nigeria (Colletto, 2003; Imaizumi, 1997; Ender and Stern, 1948; Fiorica, 1999; Rehan and Tafida, 1980)

Compare to other religions, Muslim mothers have higher twin prevalence which is in concord with a study conducted in India (Chouduri et al, 1993). The difference of having twins among religion groups may be due to gene flow caused by interethnic mixing and environmental factors including altered lifestyle socioeconomic and demographic change (Pollard, 1995; Roux, 1999).

In contrast to our study, a study in Nepal found that the twinning rate was higher among women of higher parity, but was not associated with maternal age (Katz *et al*, 2001).

Our result confirmed the suggestion of Bulmer (1970) that the prevalence of identical twin in Asian populations is two-thirds. The sex distribution of twins among Pattani hospital no evidence was found of any association with mother's demographic factors.

5.3 Limitations of this study

There are several limitations in our study. There is no information about monozygotic and dizygotic of twins in labour chart records report in Pattani hospital. There were only 35 pairs of opposite sex and this sample is too small for accurate results.

5.4 Recommendation and further Research

The results from this study provide useful information for medical services. Further study should be concentrated on the complication of twins in different areas.