Prepartum Rectal Bacterial Flora; Phra Mongkutklao Hospital, Bangkok, Thailand.

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OBJECTIVE : To define the rectal bacterial flora of mothers prior to immediate delivery at Phra Mongkutklao Hospital.

BACKGROUND : A previous study on neonatal diarrhea at the nursery of the Phra Mongkutklao Hospital was performed demonstrating epidemiologic *Escherichia coli* of several serotypes colonizing neonatal gastroenteritis symptomatic infants and over 20% of the asymptomatic nursery staff (1). A follow-up, random prepartum, study during August 1977 of mothers delivering infants to this hospital's nursery care was performed to find evidence of the epidemiologic importance in a mother to infant role.

METHODS : Patients were normal healthy mothers with no recent history or symptoms of diarrhea or gastroenteritis. Specimens were obtained upon admission to the delivery room prior to a preparatory enema. Swabs were transported in Cary and Blair media, plated on routine enteric media and incubated for 24 hours at 37°C. Identification techniques utilizing standard enteric methodology were directed towards the enteric organisms of medical importance as *Salmonella, Shigella, E. coli* and the *Vibrios*.

RESULTS : Bacteriologically significant isolates (50) of a total (103) isolates were identified.

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Enteropathogenic Isolates

Salmonella	anatum	1
"	lexington	1
"	tennessee	1
"	Isuge	1
"	Newlands	1
"	Group B species	3
"	Group E species	3

Shigella	flexneri 3	1
"	boydii 11	1
"	boydii 13	2
"	alkalescens-dispar 01	1
"	alkalescens-dispar 04	1
		6

Vibrio Isolates

V. perahaemolyticus K-19	1

Enteropathogenic E. coli

0 86:B7	4
0 55:B5	1
0127:B8	2
0119:B14	1
0 25:B19:B23	4
0125:B15	10
0111:B4	6
0128:B12	4
	32

Neonatal diarrhea related morbidity during August was zero among 371 deliveries. There were 11 cases of diarrhea, (0.3%). Demographically, the mothers were 41% from the Bangkok metropolitan area, 17% from suburbs, 18% from upcountry Thailand, and 23% of unknown address. No attempt was possible at this time to relate bacterial colonization with geographic home or to correlate symptomatic infant isolates with the maternal isolates. Of the 103 specimens, 50 were organisms of medical interest. Salmonella, Shigella and one Vibrio accounted for 36% of the significant isolates with the remaining 64% being types of Enteropathogenic *E. coli*.

Fourty eight percent (48%) of 103 mothers delivering had medical laboratory significant organisms upon admission to the delivery room. Further study of the infant mother and demographic family origins are suggested by this investigation in determining the epidemiology of neonatal diarrhea both as a significant medical problem in Thailand and a model adult diarrheal disease in new comers to this geographic area.

REFERENCE

1. Scott, R.N., Vanapruks, V., Pearlman, E.J., Phillips, G.D., and Haoupara, S. : Neonatal Diarrhea with Sepsis in the Nursery of the Phra Mongkutklao Hospital, SEATO Medical Research Laboratory Annual Report 1976.