

or more was chosen as warranting follow up to ensure that patients at risk were not missed, although few aneurysms in this category increased in size and dilatation of 3.5 cm or more was a more realistic definition of a potentially dangerous aneurysm. In the patients who subsequently had operations the aorta measured more than 5.0 cm in diameter on screening. No patient whose aorta was less than 4.5 cm in diameter needed an operation.

To detect patients at risk and yet avoid unnecessary surgery the incidence and rupture of abdominal aortic aneurysms in the community need to be studied. Longer follow up as this study continues will clarify the importance of the risk factors—namely, the size of the aorta, the ratio of the size of the aneurysm to that of the normal aorta, and growth rates—thereby simplifying identification of patients at risk of rupture. Surgery can then be planned to suit the patient's general medical condition rather than having to be performed as an emergency procedure on rupture, and patients who are medically unfit need not undergo surgery should rupture occur. This would

result in considerable savings in terms of cost and manpower as well as prevent unnecessary suffering to the patient.

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## Prevalence of irritable bowel syndrome in a non-Western population

The irritable bowel syndrome is widely recognised as one of the most common gastrointestinal disorders.<sup>1</sup> Surveys of healthy British subjects and American subjects not seeking health care showed a high proportion of people with symptoms similar to those of the irritable bowel syndrome.<sup>2,3</sup> This might not, however, be the case in non-Western societies. We estimated the prevalence of the irritable bowel syndrome among the Thai population by questionnaire.

subjects, and spastic irritable colon was also significantly less common than in the American subjects.

The reason for the low prevalence of symptoms similar to those of the irritable bowel syndrome among Thais is not known. A significantly lower proportion of Thai than American subjects reported changes in bowel pattern and abdominal pain in response to stress. The importance of this is not clear because the urban group, who reported a significantly greater

Comparison of data and prevalence of irritable bowel syndrome among Thai subjects and American and British subjects

	Rural group	Urban group	Combined Thai groups	American subjects <sup>3</sup>	British subjects <sup>2</sup>
No of subjects	401	676	1077	789	301
Mean age (years)	41	31	36	24	
% (No) of women	56 (225)	31 (210)	40 (431)	58	55
Mean (SD) No of stools/week	7.2 (3.2)	8.5 (4.9)	8.0 (4.4)		
% (No) of subjects:					
With change in bowel pattern due to stress	3.5** (14)	21.3 (144)	14.5 (156)	70.5**	
With abdominal pain due to stress	1.8** (7)	15.5 (105)	10.4 (112)	54.1**	
Taking laxatives (> once a month)	9.0* (36)	5.2 (35)	6.5 (70)	3.4*	
With bowel dysfunction†	0.8 (3)	0.3 (2)	0.5 (5)	17.1**	
With spastic irritable colon‡	5.7 (23)	4.3 (29)	4.4 (47)	22.3**	13.6**
With painless diarrhoea§	0*	3.6 (24)	2.3 (25)	4.9*	4.7
With painless constipation	9.5 (38)	7.1 (48)	8.0 (86)	17.5**	10.3
With subjective constipation¶	22.9 (92)	24.6 (166)	23.4 (252)		

† Alternating bowel function and irritable bowel type pain, diarrhoea, constipation, or any such combination.<sup>3</sup>

‡ More than six episodes of abdominal pain in the past year and three or more of the six other symptoms specified in table.<sup>3</sup>

§ Loose or watery stools more than 25% of time.<sup>3</sup>

|| Straining at stools more than 25% of time.<sup>3</sup>

¶ Defined by each subject.

\*p<0.05, \*\*p<0.01 for rural compared with urban groups; combined Thai groups compared with American subjects; and combined Thai groups compared with British subjects.

### Patients, methods, and results

We designed a questionnaire based on one supplied by Drossman *et al.*<sup>3</sup> To ensure good cooperation from the subjects we selected mainly people who knew us. One group comprised all (401) adults from two adjacent farming villages in Chantaburi Province, about 300 km from Bangkok (rural group). The other group comprised all (676) local employees of a luxury hotel in Bangkok (urban group). To avoid potential misunderstandings the questionnaires were completed by the subjects or a nurse during interviews with nurses familiar with their content.

Statistical analysis was by the  $\chi^2$  test, and significance was taken as p=0.05.

The response rate of the rural group was 86%, and of the urban group 84%. In both groups 96% of the subjects had between three stools a week and three a day. The table shows our findings compared with those of the two other studies.<sup>2,3</sup>

### Comment

The range of stool frequency in both rural and urban Thai subjects was similar to that in other reports.<sup>3,4</sup> In the American study bowel dysfunction was defined by fairly strict criteria consistent with those defining the irritable bowel syndrome.<sup>3</sup> When we used these criteria our subjects had a much lower prevalence of bowel dysfunction than the Americans. Thompson *et al.* used more liberal criteria and defined three types of irritable bowel syndrome: spastic irritable colon, painless diarrhoea, and painless constipation.<sup>2</sup> The prevalence of all three types was fairly high in the British subjects and in the American subjects when the same criteria were used. All three types were significantly less common in our subjects than the British

influence of stress than the rural group, did not have a higher prevalence of symptoms like those of the irritable bowel syndrome. Laxatives were taken significantly more commonly by Thai than American subjects, which might be explained by the high percentage of Thais recording subjective constipation.

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