

# Peptic ulcer disease in Kelantan: an underdiagnosed condition?

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## Summary

A review of the records at a teaching hospital in Kelantan revealed that 175 new cases of peptic ulcer disease were diagnosed endoscopically over a period of 5 years. The ratio of duodenal to gastric ulcers was 2:1. Male patients outnumbered females by 2.7:1. There was a disproportionately high number of Chinese patients. A striking observation was that an unusually large proportion (45%) of patients had presented with acute gastrointestinal bleeding. The implication is that peptic ulcer disease in this region may be underdetected; the diagnosis often coming to light only after a serious complication has supervened.

*Key words:* Peptic ulcer disease, gastrointestinal bleeding, Kelantan.

## Introduction

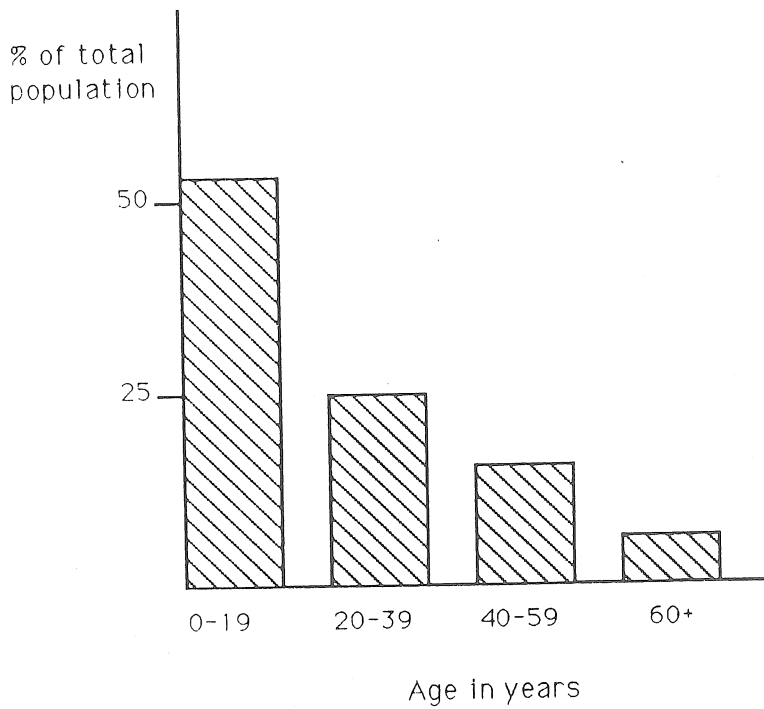
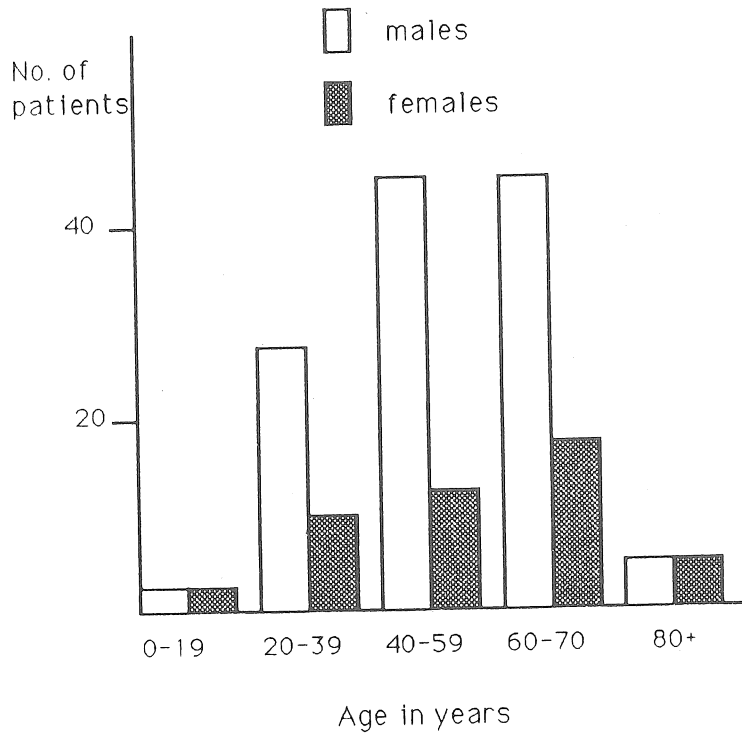
Peptic ulcer disease is common throughout the world. Estimated prevalence rates vary from 5% in Nigeria to 20% among European males.<sup>1-6</sup> These differences are due partly to true geographical variations in the occurrence of peptic ulcer disease and partly to methodological differences in the estimation of the prevalence rates. The little data that does exist on the pattern of peptic ulcer disease in Malaysia has hitherto emanated from the west coast of West Malaysia. There is scant data from other regions of Malaysia. The aim of this review was to examine the data on peptic ulcer disease in a teaching hospital in Kelantan and make a comparison with the published data from elsewhere in Malaysia.

## Subjects and procedures

A review was undertaken of the endoscopic records at the Universiti Sains Malaysia Hospital Kubang Kerian, over a period spanning from August 1984 to November 1990. All cases of peptic ulcer diagnosed for the first time over this period were studied with respect to age distribution, sex distribution, location of ulcer (ie stomach or duodenum) and the clinical presentation which necessitated endoscopy. Due to unacceptable inter-observer variations in the use of descriptive terms such as gastritis and duodenitis, patients were only included if a definite ulcer crater had been seen. Previously diagnosed cases of peptic ulcer disease undergoing repeat endoscopy were excluded.

## Results

Over a period of more than 5 years, a total of 175 new cases of peptic ulcer disease were diagnosed endoscopically. Median age at the time of diagnosis was 56 years. Figure 1a demonstrates the age distribution of the group. Taking into account the age distribution of the general population of Kelantan (Fig. 1b), it is immediately apparent that the age specific incidence of peptic ulcer disease rises with age. The ratio of duodenal to gastric ulcers was 2:1. Five patients had both duodenal and gastric ulcers.



**Fig. 1 : Comparison between (a) age distribution of peptic ulcer group and (b) age distribution of general Kelantan population**

The male to female ratios of duodenal ulcer and gastric ulcer patients were 2.8:1 and 2.5:1 respectively, Malays constituted 63% and Chinese 35% of the group. A comparison with the racial composition of all patients admitted to the general medical wards between 1988 and 1990 shows that there is an excess of Chinese patients in the peptic ulcer group (Table 1). Acute gastrointestinal bleeding was the indication of endoscopy in 45% of cases. Notably, 75% (21/28) of Malay females had presented with an acute bleed. Forty-four percent (36/82) of Malay males, 44% (19/43) of Chinese males and 22% (4/18) of Chinese females presented with ulcer haemorrhage. The median age of the patients who presented with an acute bleed was 59 years which is similar to the median age of the peptic ulcer group as a whole.

**Table 1**  
**Racial composition of peptic ulcer group and total admissions to the medical wards at the University Hospital 1988 – 1990**

	Malays		Chinese		Others		Total	
	No.	%	No.	%	No.	%	No.	%
Peptic ulcer group	110	63	63	36*	2	1	175	100
Total medical admissions	6329	90	541	8	157	2	7027	100

*\*Significantly increased proportion of Chinese in this group*

## Discussion

The pattern of peptic ulcer disease in this series is similar in some respects to the reported series from Penang,<sup>8</sup> Kuala Lumpur<sup>9</sup> and Singapore<sup>10</sup>. The male preponderance particularly in duodenal ulcer disease is a consistent feature in all four studies. The average age of the patients in this series is similar to that of the studies from the west coast of West Malaysia as is the trend of increasing incidence of the disease with age. The disproportionately high number of Chinese patients in this study is in keeping with the experience of other investigators in the country.<sup>8-10</sup> The ratio of duodenal to gastric ulcers however seems to show some regional variation. The 2:1 ratio of duodenal to gastric ulcers in the current study is comparable to the 2.5:1 ratio in Penang<sup>8</sup> and the 2.3:1 ratio in Singapore<sup>10</sup> but somewhat different from the 1:1 ratio reported from Kuala Lumpur.<sup>9</sup> Whether this represents true regional variation or merely reflects differences in referral pattern is not entirely clear.

The total number of new cases diagnosed over a period of more than 5 years was only 175. This is a relatively small number considering that the population of Kelantan is 1.1 million.<sup>7</sup> There are only 2 hospitals in the state which provide an endoscopic service. It is therefore unlikely that large numbers of patients are being diagnosed elsewhere. In comparison, the studies from the west coast had significantly larger numbers despite studying a shorter period of time.<sup>8,9</sup> The lower frequency of peptic ulcer disease in Kelantan is partly due to the demographic fact that the population is ethnically mainly Malay. It has already been convincingly shown that the Malays have a lower predisposition to peptic ulcer than the Chinese. Nevertheless this is unlikely to be the whole explanation as peptic ulcer disease is universally common.<sup>1-6</sup> A clue to the complete answer lies in the fact that an unusually large

proportion (45%) of the patients in this series had presented with acute gastrointestinal bleeding. In comparison only 22% and 30% respectively of the patients in the Penang and Singapore series had presented with acute bleeding. Indeed in similar endoscopic surveys from England and New Zealand acute bleeding was the indication for endoscopy in only between 20% and 30% of cases.<sup>11,12</sup> It is quite striking that 75% (21/28) of Malay female patients had presented with acute gastrointestinal bleeding. The implication is that peptic ulcer disease in Kelantan is underdetected and the diagnosis frequently comes to light only after a serious complication has supervened. The phenomenon of painless peptic ulcer is of course well known. However the prevalence of silent peptic ulcer has been reliably estimated to be in the order of 1-2%.<sup>4,5,13</sup> It does not seem plausible that almost half of the peptic ulcer patients in Kelantan have been harbouring painless ulcers. What would seem more likely is that many patients have milder symptoms which do not correspond to the classical textbook description of peptic ulcer pain<sup>14,15</sup> and may have been treated empirically with antacids or antispasmodics. Another important factor is that prevailing socio-cultural factors dictate that many patients particularly from rural areas are either unable or are reluctant to seek medical care until a life threatening complication has supervened.

In conclusion, the observations of this review indicate that while peptic ulcer disease in Kelantan is probably less common than on the west coast of West Malaysia it nevertheless remains significantly underdiagnosed.

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