

Abdominal Pain as a Psychosomatic Manifestation

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Abdominal pain is one of the commonest symptoms presented by patients, but in Hong Kong only recently some of these patients with abdominal pain have been referred to the psychiatric clinics. It would be informative to study these patients, albeit of a small number, presenting predominantly with abdominal pain which is here regarded as a psychosomatic symptom rather than as a clinical entity since the majority of patients could be given a conventional psychiatric diagnosis. Many papers on this subject have been published in the West but from transcultural point of view it is still worthwhile to find out how similar or dissimilar to theirs our results would be.

Case Material

Case records of patients referred to the psychiatric clinics in Kowloon Hospital and Queen Elizabeth Hospital in the past 3 years were scrutinized and those presenting with abdominal pain were collected. There were 35 patients altogether constituting the sample for this study. Twenty-four of them were still attending the clinics regularly. For the 11 who were not currently attending, they were contacted by telephone or by post to come back for assessment. All except 4 were interviewed by the author. The interview lasted about half-an-hour during which the diagnosis was reviewed, certain data when deficient were completed and the condition of the patient was evaluated.

The control group consisted of 336 patients admitted to Castle Peak Hospital during the month of July 1973. Such a control group was

not entirely satisfactory, because the majority were psychotics whose basic data could be very different from those of the general population. Despite various deficiencies a comparison of these two groups would certainly be of interest in certain instances.

Results

Sex distribution Of the 35 patients in the sample, 23 were female and 12 male. In the control group, 215 were male and 121 female. The difference in sex distribution between these two groups is significant ($P < 0.001$).

Age distribution The age at which patients sought psychiatric treatment for both the study and the control groups is shown in Table 1.

Marital status Twenty of the patients with abdominal pain were single and the other 15 ever-married. In the control group, 185 were single and 151 ever-married. The difference is non-significant ($P > 0.98$).

“Diagnosis” The provisional diagnosis given at the specialist clinic when the patient was first seen is shown in Table 2.

Admissions Of the 35 patients, 18 had 1 admission to the non-psychiatric units for investigation, 2, 2 admissions, 2, 3 admissions, 3, 4 admissions and 2, 5 admissions or over. Only 8 were referred from the Specialist Clinic direct but they had been investigated (and treated) there for some time. Indeed, 2 had laparotomy and 2 underwent surgery with no relief of pain.

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Duration of main illness The duration of illness before seeking psychiatric advice is divided into (i) less than 1 month—6 cases, (ii) from 1 to 6 months—9 cases, (iii) over 6 months—20 cases.

Patients in (i) could be said to suffer from acute abdominal pain. They attended the Casualty Department at once with or without first seeing a private practitioner. From there

they were admitted into the medical, surgical or other units for investigation and, if necessary, emergency treatment. Some of the patients in (ii) had several admissions into general units before psychiatric referral. Half of the patients in (iii) were thought to be suffering from ulcer syndrome or gastritis. Only after relief was not achieved by antacids and barium meal investigation gave negative results they were referred to the psychiatrist.

Table 1

Age range	Patients with abd. pain	Control group	Total
20 yr. and below	10 (4.6)	39 (44.4)	49
21 yr. to 35 yr.	15 (16.1)	156 (154.9)	171
36 yr. to 50 yr.	5 (8.9)	89 (85.1)	94
51 yr. and over	5 (5.4)	52 (51.6)	57
Total	35	336	371

N.B. Figure in brackets denotes 'expected frequency'
 $\chi^2=9.00$ $P<0.03$

It appears therefore that young people are more prone to the development of functional abdominal pain.

Table 2

Ulcer syndrome	9
Abdominal pain for investigation	6
Gastritis	3
Vomiting for investigation	3
Nephritis	3
Appendicitis	2
Porphyria	2
Cholangitis	1
Regional ileitis	1
Irritable colon	1
Carcinoma of colon	1
Dysphagia for investigation	1
Lead poisoning	1
Thyrotoxicosis	1
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Reasons given in notes of referral

Generally speaking, the content of referrals was brief but, in the main, the reasons given included the first together with one or more of the other 4 as shown in Table 3.

Psychiatric diagnosis The variety of psychiatric disorders after personal review of all of the cases is shown in Table 4.

A brief note of explanation for the last 2 diagnostic categories may be necessary. The 2 patients diagnosed as personality disorder had for a long time been complaining of aches and pains in general and of abdominal pain in particular. Their pain was not obviously related to any stress and strain nor explicable by any

underlying psychogenic factors. Also it was definitely not a symptom of an endogenous psychiatric illness and it appeared to the attending psychiatrists that the problem was with the personality. As regards the patients labelled "psychophysiological reaction", their abdominal pain was related to some environmental stress (and emotional excitement) at its onset or recurrence. Apart from this complaint of abdominal pain, there were few other features which would allow a well-defined conventional psychiatric diagnosis be made.

Family size Family size is defined here as the total number of the patient's siblings (all live births) plus the patient. The family size of the two groups was compared in Table 5.

Table 3

Findings of investigations negative.
Clinical picture not typical of organic disease.
Some psychological problems.
Some psychiatric symptoms (apart from abdominal pain).
Some relief of abdominal pain by placebo.

Table 4

Depressive illness	11
Anxiety state	7
Hysteria	6
Personality disorder	2
"Psychophysiological reaction"	9
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Table 5

Siblings including pt.	Group with abd. pain	Control group	Total
1 – 2	6 (7.8)	77 (75.2)	83
3 – 5	7 (16.0)	163 (154.0)	170
6	12 (3.6)	26 (34.4)	38
7 & over	10 (7.6)	70 (72.4)	80
Total	35	336	371

N.B. Figure in brackets denotes 'expected frequency'
 $\chi^2=28.54$ $P<0.001$.

It appears that there exists a relationship between functional abdominal pain and a large sibling size.

Past experience of pain Patients were thoroughly questioned about their experience of similar pain (irrespective of aetiology) in early life. Of the 35 patients in the study group, 19 had similar painful experience in the past. It was possible only to question 70 taken randomly from the control group. Only 9 of them had such experience. This difference between these 2 groups is significant ($P<0.001$).

Pain in patients' near relatives Information on their first degree relatives on having had similar pain before could only be

regarded as very approximate. Nonetheless, as far as tactful enquiry could obtain, 8 of the 35 patients with abdominal pain had at least 1 of their near relatives with this history whereas only 4 of the 70 taken randomly from the control group gave such a history. This difference is significant ($P<0.02$).

Management The treatment methods were grouped as shown in Table 6 and the attending psychiatrist was asked to tick the most important of these methods employed in the treatment of their patients.

Table 6

Medication alone	17
Psychotherapy alone	3
Medication + psychotherapy	12
Medical social work	1
Psychotherapy + medical social work	2
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A few practical points derived from the experience in the management of these patients may be mentioned at this juncture. Firstly, when abdominal pain (non-organic) was severe, admission into a psychiatric unit or hospital was necessary because if not many a patient attended the Casualty Department repeatedly leading to many re-admissions to surgical, medical and other general wards from there the patients would then be referred to the psychiatric clinic again, thus wasting a lot of time of the staff of various units and undermining the confidence of the patients. Secondly, in acute cases injections were usually required. Almost all the patients suffering from acute abdominal pain in this series received injections of one kind or another. Even when investigations ruled out an organic basis, placebo injection was still given. Perhaps the Chinese are more obsessed with injections for quick relief of suffering. Admittedly, placebo response plays a part in any medication and some relief of pain from a placebo injection does not necessarily mean that one is dealing with an illness of non-organic aetiology. Thirdly, Psychotropic drugs could be useful to a greater or lesser extent in many cases of abdominal pain irrespective of aetiology (except of course in the case of acute medical or surgical emergencies). In the case of a depressive illness with abdominal

pain as a symptom, these drugs would lift up the depression and relieving the pain. In the other conditions, it would alleviate anxiety which may be primary or secondary, i.e. initiating or aggravating the abdominal pain. In 3 of the 7 cases diagnosed as anxiety state, the disordered gastro-intestinal functioning outlived the stressful situation. Even in these 3, psychotropic drugs were useful. It is true that in many cases medication only aims at the symptoms and does not tackle the underlying problem. Even so it is important that the initial symptomatic relief could impress the patients who would then co-operate better in further therapy and accept advice more readily. More often than not drug therapy was maintained for a comparatively long period, partly because our patients' emotional or social problems were less remediable or else our psychotherapeutic measures were less adequate in dealing with them.

Follow-up The follow-up period is the length of time expressed in months between the initial attendance and the follow-up interview by the author or, in case the patients failed to turn up for evaluation, the last attendance recorded. The mean follow-up period is 20.65 months (with S.D. \pm 9.17). The patient's condition at follow-up or last attendance was categorized as shown in Table 7.

Table 7

Condition at follow-up	No. of patients (%)
symptom-free	10 (28.6%)
significantly improved*	14*(40.0%)
slightly improved	9 (25.7%)
no change or worse	2 (5.7%)
	<hr/> 35 (100%) <hr/>

* One of the patients in this group finally had an appendectomy after which his lower abdominal pain became much improved.

Discussion

Throughout this study the author always kept in mind the possibility that an organic lesion had been missed or would evolve later. The patient quoted earlier to have shown improvement only after appendectomy might suggest the former. As for the latter, the present follow-up period was considered too short to warrant a repetition of certain investigations such as barium meal in those patients initially thought to be suffering from ulcer syndrome or gastritis. In a series of patients presenting with ulcer symptoms but having a normal barium meal, about 10% went on to develop ulcers (Barfred 1959; Brummer and Hakkinen, 1959). On the contrary, for the 2 patients quoted to have undergone surgery (cholecystectomy in one and vagotomy and pyloroplasty on the other), their abdominal pain remained the same or got worse.

When comparing the two groups in this study, significantly more patients with abdominal pain had similar pain in the past. This experience which in many patients occurred as early as childhood could have impressed upon them the vulnerability of abdominal organs leading to overconcern over this area of the body or else could have conditioned them to react with pain to discomfort in the abdomen which others might take no notice of. However, it was not possible to exclude the psychogenic nature of the earlier attacks of abdominal pain.

Many studies demonstrated that in patients with "non-organic" abdominal pain there were significantly more near relatives suffering from similar pain before (e.g. Apley, 1959; Hill et al, 1967). This seems to have received support from the present study on Chinese patients. Such a finding may be explained either by hereditary influence in the sense that the patient may have inherited a sensitive gastro-intestinal tract or by the mechanism of identification. In the present series 2 patients began to complain

of abdominal pain after their near relatives died of abdominal diseases (in 1 of carcinoma of stomach).

The existence of a relationship between large sibships and pain has been found, for example, by Gonda (1962) and Hill et al (1967). The present finding tends to support this. To account for this the workers have so far postulated that pain has greater communicative value and attracts more of others' attention and concern. In the author's view, it could also be readily explained by an increase in opportunity to identify with a relative or to suffer from attacks of abdominal pain in the past. The latter is especially true in Hong Kong where overcrowding is already a problem for an average family. A large-sized family could have increased the chances of having abdominal pain, organic or psychogenic.

Two-thirds of the patients in the 'abdominal pain' group were female. This may not appear surprising since many papers published in Western countries on aches and pains had their samples consisting of more females than males. However, it should be noted that the hospital admissions there shared the same trend of sex distribution. In the present control group on the other hand, only one-third of the hospital admissions were female. This seems to suggest that females may in fact be more vulnerable to the development of abdominal pain as a psychosomatic manifestation in Hong Kong although the deficiency of the control group has to be borne in mind. This vulnerability in females cannot be regarded simply as due to the additional functional gynaecological complaints. As a matter of fact, only 2 of the female patients were referred by the gynaecologists. As compared with women in the West, the Chinese women in Hong Kong still play a far more submissive role in the family or in the society. They still have more dealings and so more conflicts with their in-laws. Three of the married women in the present series did attribute this conflict with

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their mother-in-law as the main stress they encountered. A reasonable explanation could be imported "as a substitute for expressed hostility or an expiation of guilt for overt hostility". An alternative explanation could be that females have a lower pain perception threshold (P.P.T.) and/or pain reaction threshold (P.R.T.). (Chapman and Jones, 1944; Kennard, 1952 and Merskey and Spear, 1964). Hall and Stride (1954) found that the P.P.T. and P.R.T. increased with age. This could explain our finding that young patients (aged 20 years and below) tend to be more liable to have functional abdominal pain. In line with this Harding (1962) has found that a mistaken diagnosis of acute appendicitis was made much more often in female aged 11 to 20 years.

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