features that appear frequently in intubated patients who may require later tracheostomy. Ventilator-associated pneumonia, low GCS, and the need for reintubation are possible risk factors for tracheostomy. Optimal time for tracheostomy varies with age and underlying pathology that lead to the need for it. The majority of the patients can be discharged from PICU post-tracheostomy; however, the mortality and outcome of pediatric tracheostomy patients depends primarily on the underlying medical condition.

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From the Department of Pediatric and Cardiac Science, King Abdul-Aziz Medical City, Riyadh, Kingdom of Saudi Arabia. Address correspondence and reprint requests to Dr. Mohamed S. Kabbani, Department of Cardiac Science, Mail Code 1413, King Abdul-Aziz Medical City, PO Box 22490, Riyadh, Kingdom of Saudi Arabia. Tel. +966 (1) 2520088 Ext. 6671. Fax. +966 (1) 2520088 Ext. 6700. E-mail: mskabbani@hotmail.com

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Pattern of gastroenterology psychiatric consultations. *A prospective study*

Abdulrazzak M. Alhamad, *BC Psych, JB Psych.*

The relationship between gastrointestinal (GI) complaints and psychiatry remains complex.[1] As, 1. more than 25 functional GI disorders were described and they were found to be extremely common, where in some household surveys in the United States of America, their rate exceeded 65%,[2] 2. patients with functional GI disorders have a significantly higher rate of physical or sexual abuse in childhood, and a high prevalence of psychiatric disorders compared with the general population.[1,2] Another complicating factor is the finding that patients with bowel disturbances are less likely to visit doctors for their GI symptoms until they are amplified by depression, anxiety, pain and recent negative life events.[2] Areas of GI disorders of interest to psychiatry are numerous and variable such as irritable bowel syndrome (IBS), esophageal motility disorder, liver and small intestine transplant, gastritis, ulcerative colitis, peptic ulcer, globus hystericus, endoscopy and constipation.[2,3] This study is an attempt to explore the clinical aspects of GI psychiatric consultations prospectively in a teaching hospital in the Kingdom of Saudi Arabia (KSA).

Consecutive GI referrals to psychiatry at the King Khalid University Hospital (KKUH), Riyadh, KSA, were assessed prospectively using a data collection form including all sociodemographic data and clinical indices of the consultation under the supervision of the author for 3 years from 1990 to 1992. King Khalid University Hospital is a university general hospital with 630-beds and the gastroenterology division during the study, had 16 beds with 5 consultants in-charge. The Stat Pac Gold statistical analysis package was used. Twenty-six patients were referred over 3 years with mean age of 40.2±24.548, ranging from 18-82 years and a male to female ratio of 1:1.9. Other sociodemographic data are shown in **Table 1**. The total referral rate over 3 years was 2.7% and for each year was 2.1% (1990), 2.4% (1991), and 3.3% (1992). Time lag of referral which is the time between admission and referral to psychiatry, ranged from 0-14 days with a mean of 2.87±3.833 days and the mean duration of admission was 14.73±11.473 days with a range of 1-41 days. The reason for the referrals was for psychiatric evaluation of a suspected psychiatric disorder in 76.9% of the cases. Only 7.7% of patients were informed of the referral, but 92.3% accepted the psychiatric referral and 84.6% accepted the psychiatric treatment. None of the discharges were agreed with the psychiatrist, but in 84.6% of the cases the psychiatrist was notified. Approximately 46.2% of the cases were treated by psychotropic drugs only and 30.7% were treated by psychotropic drugs and other form of psychotherapy and 50% of the cases showed a marked improvement. The diagnostic and statistical manual (DSM-III-R), for psychiatric diagnosis analysis showed 34.6% of the patients had major depression and 15.4% had generalized anxiety disorder (GAD) and panic disorder, other diagnoses in concordance with GI diagnoses are shown in **Table 2**. This perspective study highlights some important aspects of consultation-liaison (C/L) between psychiatry and gastroenterology. Gastrointestinal psychiatric

consultations in this report, tended to be middle-aged females, married with low education, unemployed or housewives and living in cities. Some of these variables are similar to worldwide reports of referrals to psychiatry in general hospitals.[4] The mean age of 40.2 years may reflect the chronicity of these cases and it may also be supported by the finding that 73.1% of the patients had a history of chronic disease, it may also indicate late detection of psychiatric disorders in these patients and hence late age referral.[2] The excess of females is the trend in most studies of C/L.[4] Being married with low education and unemployed, may reflect negative predisposing factors to an unhealthy marital relationship, where the female is unable to cope with stress and hence, is more vulnerable to psychiatric disturbance.[5] The area of residence to be from inner cities more than rural areas are consistent with studies of depressed women.[5] Contact with healers is low in this sample and is contrary to what was found in neurological referrals in the same culture.[6] This may be explained by the purity of physical symptoms presenting in GI disorders compared to presenting symptoms in neurological diseases where vague and mixed symptoms are more likely such as dizziness, headaches and others, this leads more neurological patients to go to traditional healers than GI patients.[2,6] Alcohol abuse in 15.4% of patients is easily understood in view of liver cirrhosis and other GI diseases, but being not so high may also reflect the low status of alcohol abuse in the Saudi people.

The total referral rate is higher compared to other reports,[2,4] and this may reflect the high prevalence of psychiatric disorders in GI patients compared to other subspecialties or maybe due to the high ability of GI physicians to detect psychiatric disorders or both. The other finding that shows the rate of referral was progressively increasing over the 3 years may be explained by the increase in awareness of psychological problems in GI patients by referring consultants. The time lag in this study and the maximum range (14 days) are less than other studies,[7] and this may be due to a) that psychiatric disorders in GI in-patients are so evident to be detected early and referred, b) that in GI patients, organic pathology is easy to be ruled out and hence referred easily and quickly to psychiatry, or c) that our GI consultants have a positive attitude towards psychiatry.[2]

The finding that the common reason for referral was for psychiatric evaluation, indicates more positive attitude of GI doctors towards psychiatry and the high sensitivity to detect the presence of a psychiatric disorder. The good percentage of patients referred for competence evaluation adds positively to the ethical standard of clinical practice in the GI division.[2] On the other hand only 7.7% of patients were informed of the referral and this may

Table 1 - Sociodemographic data n=26 patients.

Variable	Results n (%)
Age	40.2±24.548 years
Mean	18-82 years
Range	
Sex	9 (34.6)
Male	17 (65.4)
Female	1:1.9
Ratio	
Marital status	16 (61.5)
Married	2 (7.7)
Single	8 (30.8)
Divorced	0 (0.0)
Widow	
Education	11 (42.3)
Illiterate	7 (26.9)
Primary school	2 (7.7)
Intermediate	4 (15.4)
Secondary	2 (7.7)
University	0 (0.0)
Higher	
Nationality	24 (92.3)
Saudi	2 (7.7)
Non-Saudi	
Occupation	4 (15.4)
Civilian	22 (84.6)
Unemployed/housewife	
Area of residence	21 (80.8)
Urban	5 (19.2)
Rural	
Region of residence	13 (50)
Middle	7 (26.9)
North	2 (7.7)
East	0 (0.0)
South	4 (15.4)
West	
Contact with healers	2 (7.7)
Yes	24 (92.3)
No	
Alcohol and drug abuse	4 (15.4)
Yes	22 (84.6)
No	
History of chronicity	19 (73.1)
Yes	7 (26.9)
No	

Table 2 - Rates and concordance of psychiatric and GI diagnoses n=26.

DSM-III-R psychiatric diagnosis	IBS	PU	GS	LC	Ca St	Total n (%)
Major depression	2	2	2	1	2	**9 (34.6)**
GAD	1	2	-	1	-	**4 (15.4)**
Panic disorder	3	1	-	-	-	**4 (15.4)**
Drug abuse	-	1	-	2	-	**3 (11.5)**
Delirium	2	-	-	-	-	**2 (7.7)**
Phobic disorder	1	-	-	-	-	**1 (3.85)**
Schizophrenia	-	-	1	-	-	**1 (3.85)**
Mania	-	-	1	-	-	**1 (3.85)**
Mental retardation	-	-	1	-	-	**1 (3.85)**
Total n (%)	**9(34.6)**	**6(23.1)**	**5(19.2)**	**4(15.4)**	**2(7.7)**	**26(100)**

GI - Gastrointestinal, IBS - Irritable bowel syndrome, PU - Peptic ulcer, GS - Gall bladder stones, LC - Liver cirrhosis, Ca St - Cancer stomach, GAD - Generalized anxiety disorder, DSM -Diagnostic and statistical manual.

be explained by poor-doctor-patient relationship where communication and explanation to patients is lacking.[8] Inspite of the low number of patients informed of the referral, many patients accepted seeing the psychiatrist and accepted psychiatric treatment. This emphasizes the positive attitude towards psychiatry in the Saudi culture as found in other studies.[3,5,6] Discharge of patients was not up to the liaison cooperative level, where joint decision is taken by both the physician and the psychiatrist, but also it was not fully independent and the psychiatrists were notified in 84.6% of the cases. This is an area where psychiatrist and GI physicians have to develop and discuss jointly the disposal of referred patients.[8] Also, cases referred to were shown to be more severe and responded more to psychotropic medication and some needed combined psychotherapy.[9] Response to treatment may indicate that GI patients with psychiatric comorbidity are likely to be chronic and difficult to respond to treatment, which stresses the joint and close work up of these cases between psychiatrist and physicians where more planned, comprehensive and multidisciplinary approach to management is needed to achieve a better response to treatment.[8,9] Psychiatric diagnoses in this series of patients may not be conclusive due to small numbers, but major depression and GAD are common as shown in other subspecialties.[6] On the other hand, panic disorder and drug abuse are also evident and this is supported by previous studies in GI patients.[2] As expected IBS was more common in this sample (30.8%) and panic disorder is the more common to be associated with as shown in several reports.[1,2] Delirium to be associated with IBS may be due to old age or severe electrolyte imbalance due to diarrhea or just due to other different reasons.[2] Alcohol and drug abuse is only associated with liver cirrhosis and that is understandable.[2] Peptic ulcer was associated more with major depression and GAD and this is understandable and explainable by other reports.[1,2]

This study being prospective and for 3 years, presents a reasonable valid and stable background to understand GI psychiatric consultations, where a close relationship of GI and psychiatric disorders appear evident and many areas need development. Some of these are, communication with patients for informed referral, better detection and diagnosis of common psychiatric disorders, better education and training of non-psychiatrists to treat common psychiatric disorders, better liaison in management and disposal of referred patients, and improvement of effectiveness of treatments provided. Future research to explore specific areas such as those mentioned above or other aspects of the GI C/L psychiatry, is definitely needed to rectify some of the flaws of this study and develop C/L work for the excellence of our patient care.

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From the Division of Psychiatry, College of Medicine, King Saud University, Riyadh, Kingdom of Saudi Arabia. Address correspondence and reprint requests to Dr. Abdulrazzak M. Alhamad, Head, Division of Psychiatry, College of Medicine, King Saud University, PO Box 7805, Riyadh 11472, Kingdom of Saudi Arabia. Tel. +966 (1) 4672362. Fax. +966 (1) 4672571. E-mail: alhamad@ksu.edu.sa

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Incidence and patterns of bone marrow involvement in Ewing's sarcoma

Saeed Al-Amoudi, *MD,* ***Tarek Owaidah,*** *MD, FRCPA,* ***Fouad Al-Dayel,*** *MD, FRCPA.*

Ewing's sarcoma (ES) is a member of Ewing's family of tumors, comprised of a spectrum of malignancy of bone and soft tissue. It accounts for 40% of primary bone tumors in childhood with peak incidence of 10-15 years and rare below 5 years and above 30 years.[1] Ewing's sarcoma may spread within the bone of origin, through medullary cavity or through bone cortex in extra-osseous soft tissue. It is found most frequently in mid shaft of a long bones, specially the femur or in flat bone of the