Henry Ford Hospital Medical Journal

Volume 12 | Number 3 Article 3

9-1964

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S. H. Schuman

B. M. Schuman

Henry Ford Hosp. Med. Bull.
Vol. 12, September, 1964

SOCIOLOGICAL ASPECTS OF REGIONAL ENTERITIS

SCHUMAN, S.H., A.B., M.A., AND SCHUMAN, B.M.,* M.D.

INVESTIGATORS IN THE field of medical sociology have tended to concentrate in three areas: (a) stratification of medical facilities and personnel with emphasis on chains of command and lines of communication,[1,2] (b) medical economics,[3] and (c) mental health.[4] A relatively neglected area is the study of a specific disease within its social setting. A special occupational predominance in peptic ulcer[5] and an emergent class pattern in cardiovascular disease[6] represent good examples of specific diseases related to social factors.

This study was undertaken to determine whether consistent social patterns exist in regional enteritis and, if so, in what way they coincide with or deviate from the total hospital population as a control group. That social factors are important is implied by the known existence of distinctive social patterns in other diseases of the lower digestive tract, particularly, the unique family structure in ulcerative colitis.[7] One hundred and thirty-two cases were indexed at this hospital with a diagnosis of regional enteritis for the period of January 1, 1958 through November 15, 1962. The records of five deceased patients and five duplicate records were removed, leaving a group of 122 cases. Of this group, 73 cases had been confirmed by x-ray study or by surgical exploration. No profile study of the total hospital population has been compiled. However, in some specific areas, analyses have been made. The time span for these studies did not always coincide exactly with the period of the regional enteritis study. Nor were the figures always computed on the same population base. Consequently, these standards of comparison can be used only as approximations.

Sex: While most studies indicate no sex preference, there are reports of a somewhat greater incidence among males. Van Patter's study showed that males were affected over females in a ratio of five to four, i.e., 55.7 per cent of his patients were male.[8] Forty-three of our cases were male (59 per cent) and 30 were female (41 per cent). (Table I).

Age: It has been consistently emphasized that regional enteritis is a disease of young people. In the Mayo study 55.3 per cent of the patients were between the ages of 16 and 30 years, and 76.6 per cent of the patients were between the ages

*Division of Gastroenterology.

Table I

Distribution of Patients by Sex	Male	Female
Regional Enteritis Cases	59%	41%
HFH New Patient Population 1955, 1958, 1962 (1% Sample)	53.1%	46.9%
Detroit Metro Area (approx.)[9]	47%	53%

of 11 and 35 years.[8] These figures are substantially in agreement with those reported by Daffner and Brown.[10] Thirty-six cases (49.3 per cent) were between 13 and 30 years of age when the diagnosis was first made at this hospital. However, some of these patients had been seen elsewhere over variable periods of time before becoming patients here.

A breakdown of our cases into age groups shows two peak periods of primary diagnosis, 21-30 year age group and 41-50 year age group. (Table II). When the age characteristics are compared to an approximate standard for the hospital population, they lose any special significance.

Table II

Age grouping of Patients	below 15 yrs.	15-20	20-30	31-40	41-50	51-60	61-70	over 70
Number of Cases per Age Group	3	7	29	12	16	3	3	0

Table III

Age Distribution of Cases	Under 40 years of age	40 years of age and over
Regional Enteritis Cases	68.4%	31.6%
HFH New Patient Population 1955, 1958, 1962 (1% Sample)	68%	32%

Race: The incidence of regional enteritis among Negroes is proportionally smaller than among white patients. (Table IV). The approximate figures for the Detroit Metropolitan area would tend to indicate a lesser frequency of regional enteritis among non-whites. However, the differences may reflect only a proportionally smaller non-white patient than white hospital population. Boyce[11] in his study of 54 cases in New Orleans, compares his case figures against the racial makeup of the hospital population and concludes that the disease is much less frequent among Negroes. Gump and Lepore[12] report 12 per cent of their cases studied were Negro but point out that their hospital population contains a greater percentage of Negro patients than do other hospitals. No cases of regional enteritis occurring among non-whites exclusive of Negroes are reported in the literature.

Table IV

Racial Distribution of Cases	White	Non-white
Regional Enteritis Cases	71 cases 97.3%	2 cases 2.7%
Detroit Metro Area (approx.)[9]	80%	20%

Familial tendency: Steigman and Shapero[13] have prepared a review of the literature listing all the multiple cases in the same family previously cited as well as reporting two additional familial occurrences. A total of 19 families are listed where more than one member has regional enteritis. It should be noted that in 14 instances (73.6 per cent) of the familial disease, the multiple cases occurred among siblings or among cousins living in the same household rather than appearing in a pattern of successive generations. These authors do not indicate the incidence in the entire group of patients studied. Sherlock, et.al.[14] point out that familial regional enteritis is probably "caused mainly by genetic factors rather than infectious agents".

Of the 73 cases of regional enteritis we reviewed, two cases (2.7 per cent) showed familial incidence, only one of which was positively confirmed. A medical report was available on one patient's sister who had had surgical exploration confirming the disease. The other instance was a 22-year-old man who said his brother had had surgery for regional enteritis but no documentation was available.

Religion: There is a greater incidence of the disease among Jewish than among non-Jewish people.[15] A study by Acheson[16] of 2320 male patients from 174 Veteran's Administration hospitals reports 8.8 per cent Jewish patients with regional enteritis where a control population showed two per cent Jewish patients. In their study of 600 cases at Mayo Clinic, Van Patter et.al.[8] report that 25.5 per cent of the patients were Jewish.

While the religious distribution of our regional enteritis patients (Table V) tends to confirm a higher incidence of the disease among Jewish patients, it does not approach the figures offered in the literature.

Table V

Religious Distribution of Patients	Catholic	Jewish	Protestant and Other
Regional Enteritis Patients	25 cases 34.2%	10 cases 13.7%	38 cases 52.1%
All HFH Discharges 1958-1962	47,607 32%	4,271 3.5%	93,641 64.2%
Detroit Metropolitan Area (approx.)	35%	3.4%	61.6%

Emotional stress factors: There are divergent feelings about the significance of psychologic factors. Daffner and Brown[10] believe that attacks of regional enteritis are rarely precipitated by emotional crises. Banks and Zetzel[15] indicate that although emotional stress frequently precedes an attack, that does not necessarily make it an etiologic factor. On the other hand, a study by Stewart[17] shows that psychiatric factors are prominent in confirmed cases of regional enteritis. He says that while there are "no decisive relationships of emotional problems to the somatic disease, the material suggests some form of interrelationship, . . . the severity and the prognosis being related to the severity and chronicity of the emotional disturbance". He believes that in persons predisposed to the disease by constitutional or hereditary factors, emotional factors play a significant role. The relationship between emotional stress and regional enteritis has been challenged because it is not amenable to a controlled study.[15]

In our study no patient had been hospitalized primarily for a mental disorder. Five patients had had psychiatric evaluation, and of those one was considered emotionally stable, one was an alcoholic, two were classified as neurotics, and one was not classified.

In 38 cases (52 per cent), there were stress factors reported by the patient or considered worthy of mention by the physician. (Table VI).

Table VI

Stress Factors Reported	Number of times reported
Poor relationship with mother and/or father	2
Concern over the disease itself	3
Tension in the home	12
Financial strains	7
Job strains	3
Too many outside activities	1
Non-specific nervousness and tension	14

Occupation: When the records are examined both for the individual patients and for the family units, a distinct clustering of occupations appears. (Table VII). Of the 41 employed patients, 34 (81 per cent) are employed in small businesses, in clerical or sales work, skilled crafts, or as professionals. By family units, excluding the one unemployed patient, there are 72 units (i.e., employed patients, housewives, and students). Of these, 54 (73.1 per cent) chief wage earners (i.e., heads of house, or employed patients plus fathers of students and husbands of housewives) are employed in small businesses, clerical or sales work, crafts, and as professionals.

Table VII

Occupational Categories	Number of Regional Enteritis Patients	Number of Husbands of Housewives and Fathers of Students
Student	12	
Housewife	19	
Unemployed	1	
Proprietors and managers of large businesses	2	1
Small business owners and managers — sales type	4	6
non-sales type		1
Clerical, sales and kindred workers	15	6
Craftsmen, foremen and skilled workers	6	4
Professional and semi-professional	9	5
Operatives and semi-skilled workers	4	6
Protective service	1	0
Laborers	0	2

The true significance of these figures cannot be judged at the present time since they can be compared neither with hospital population figures, nor with Detroit Metropolitan Area census figures which categorize occupations differently. However, this occupational pattern suggests a class factor in regional enteritis.

Conclusions

There is no appreciable distinction between the age composition of regional enteritis patients and the overall hospital population. There appear to be two peaks of incidence of onset of regional enteritis, one between the ages of 21 and 30 years, the other between 41 and 50 years of age, whereas previous studies indicate a preponderance of cases in the lower age groups.

While the incidence among Jewish patients is higher than in the overall hospital population and community population, it is lower than reported elsewhere. It may be that the higher incidence among Jews is more closely related to family patterns or ethnic origins of this religious group.

Occupational patterns exist among the regional enteritis patients studied. Although their significance cannot be evaluated until compared with those of the overall hospital population, they, nevertheless, suggest that class factors may be important in regional enteritis.

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ACKNOWLEDGEMENT

Miss Sylvia Chamberlain, of the Medical Records Department, provided data about the overall hospital population. L. Cross, S.J., Ph.D., Chairman of the Department of Sociology, University of Detroit, reviewed the manuscript.