

# Diverticular disease in the West Indies: a Trinidad study

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A review of 971 consecutive barium enemas from a Trinidadian population revealed 239 (24.6%) with diverticular disease. The whole colon was involved in a large proportion (31.4%) of the cases, compared to other populations. For a developing country, this is a high incidence of diverticular disease, and it may be due to rapid economic development. Complications of diverticulosis coli must now be frequently considered in the differential diagnosis of the acute abdomen in Trinidad.

Although diverticular disease is quite uncommon in many underdeveloped countries, including Africa and Asia, recent reports indicate an increasing incidence<sup>2</sup>. In Trinidad, our observation of an increase in clinical complications of the disease prompted us to assess its prevalence and distribution in our population, for there is no previous report on this condition on the island. All barium enemas done at Port of Spain General Hospital from 1982 to 1985 were reviewed.

## Methods and results

971 barium enemas were available for study, of which 239 (24.6%) showed evidence of diverticular disease.

### Age and sex distribution (Table 1)

There were 91 males and 148 females with diverticular disease (an approximate M:F ratio of 1:1.6). The majority of patients (98%) were over 40 years of age, with an average of 61.4 in males and 63.4 in females.

### Distribution of colonic diverticula

The sigmoid colon was involved alone in 36.4% and in combination with other regions in 82% of all cases (Table 2). The whole colon was affected in 31.4% of cases, while the right colon only was involved in 10%

## Discussion

There is a wide geographic variation in the incidence of diverticular disease, from nil to nearly 30% of the population, and in western countries it is the commonest affliction of the colon in adults. In our study, the incidence of 24.6% is much higher than that in Jordan (4%)<sup>3</sup>, Southern Iran (1.6%)<sup>4</sup> and India

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TABLE 1  
Age and sex distribution of diverticular disease

| Age    | Male                |                      | Female              |                      |
|--------|---------------------|----------------------|---------------------|----------------------|
|        | Normal barium enema | Diverticular disease | Normal barium enema | Diverticular disease |
| 1 yr   | 24                  | —                    | 19                  | —                    |
| 1-10   | 53                  | —                    | 31                  | —                    |
| 11-20  | 8                   | —                    | 14                  | —                    |
| 21-30  | 34                  | 1                    | 23                  | 1                    |
| 31-40  | 45                  | 3                    | 41                  | 7                    |
| 41-50  | 38                  | 14                   | 56                  | 11                   |
| 51-60  | 46                  | 22                   | 78                  | 39                   |
| 61-70  | 59                  | 32                   | 61                  | 42                   |
| 71-80  | 39                  | 14                   | 42                  | 34                   |
| 81-90  | 8                   | 4                    | 11                  | 13                   |
| 91-100 | 2                   | 1                    | —                   | 1                    |
| Total  | 356                 | 91                   | 376                 | 148                  |

TABLE 2  
Site distribution of diverticular disease

| Site                       | No. |
|----------------------------|-----|
| Sigmoid                    | 87  |
| Sigmoid and other parts    | 34  |
| Whole colon                | 75  |
| Descending colon           | 14  |
| Ascending colon            | 16  |
| Caecum                     | 5   |
| Transverse colon           | 5   |
| Caecum and ascending colon | 3   |
| Total                      | 239 |

(6.4%), and it is similar to that of the Western developed nations<sup>6,7</sup>. This high incidence may be due to economic development and the adoption of a low fibre diet: these are the associated factors frequently suggested as the reason for the high incidence in developed countries<sup>1</sup>. However, the high incidence may be also partly due to the greater availability of roentgen study and the increasing age of the population.

Our study noted a slight predominance of the incidence of the disease in females, a finding reported in Parks' series of 521 cases<sup>8</sup>. The distribution of diverticula in the colon in our study is somewhat different

from that described by Parks, and from that described by de la Vega<sup>5</sup>. Total colonic involvement was found in 31.4% of our cases compared with only 6.5% in Parks' series, and in 10% of our series there was right colonic involvement only. There is no clear explanation for differences in site distribution, though Henderson<sup>9</sup> suggests that involvement is progressive, and Parks believes that it is determined early in the course of the disease<sup>8</sup>.

From our study, the incidence of diverticular disease is high in Caribbean society and must now be frequently considered in the differential diagnosis of the acute abdomen in adults. This trend towards an increasing incidence of diverticular disease and its complications could be expected in other third world countries and other West Indian islands as economic development progresses.

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## Surgical Instruments Design Contest

### (Prize for Surgical Instruments Design)

**Goal:** To promote a comprehensive approach to Surgical Instruments Design.

#### Methods

1. The contest is open internationally to any individual, firm or institute. Each contestant may submit any number of instruments.
2. Any instrument or system related to surgery is eligible. Designs, photographs, models or (preferably) working final prototypes or clinically assessed instruments may be submitted. These should be sent before 30 July 1987. The contesting instrument should be accompanied by an explanatory letter specifying the qualities of the instrument in the domains of:
  - Innovation
  - Function
  - Ergonomics
  - Harmony and aesthetics
3. An international jury panel will assess the contesting instruments and will declare the three winning instruments before 30 December 1987. This verdict is final. The contestant may offer the same or a modified version of his entry(s) in subsequent years. Unmodified instruments may be presented only twice.
4. Three awards: \$1500, \$1000, \$500 and a plaque will be offered to first, second and third winning instrument. The contesting instruments models will become property of The Center which reserves the right to publish or exhibit them with the proper acknowledgement. This right is not extended to legal, marketing, designs, or patents proprieties which will continue to be held by the contestant.
5. For further details please contact: Lior Rosenberg, M.D. Department of Plastic and Reconstructive Surgery, P.O.Box 151, Soroka University Center, Beer Sheva, Israel.